

## Weekly COVID-19 Question Time Reference Material – 22 October 2021

### Rates of COVID-19 Cases and Deaths, by selected population group

**Table 1: COVID-19 cases and deaths, Australia, by population group and year, since January 2020**

Source: NINDSS extracted 22 October 2021 (except for Victoria where data was only current to 21 October 2021) and Aged Care data as at 22 October 2021.

Population Group	Cases (Percentage among relevant population group)	Deaths (Percentage among relevant population group)	Crude Case Fatality Rate <sup>^</sup>
<b>2020</b>			
<b>Residential aged care facility residents</b> (January 2020 to 31 December 2020)	1.123%	0.375%	33.4% <sup>#</sup>
<b>Aboriginal and Torres Strait Islander population**</b> (January 2020 to 31 December 2020)	0.019% (locally acquired – 0.015%)	N/A (locally acquired – N/A%)	N/A (locally acquired - N/A)
<b>General population – all cases</b> (January 2020 to 31 December 2020)	0.111% (locally acquired - 0.087%)	0.004% (locally acquired - 0.003%)	1.3% (locally acquired - 1.4%)
<b>2021</b>			
<b>Residential aged care facility residents#</b> (1 January 2021 to 22 October 2021)	0.401%	0.049%	12.16%
<b>Aboriginal and Torres Strait Islander population**</b> (1 January 2021 to 7 October 2021)*	0.603% (locally acquired – 0.603%)	0.001% (locally acquired - 0.001%)	0.23% (locally acquired - 0.22%)
<b>General population – all cases</b> (1 January 2021 to 7 October 2021)*	0.387% (locally acquired - 0.380%)	0.002% (locally acquired - 0.002%)	0.65% (locally acquired – 0.65%)
<b>Total 2020 to 2021</b>			
<b>Residential aged care facility residents#</b> (1 January 2020 to 22 October 2021)	1.523%	0.424%	27.81%
<b>Aboriginal and Torres Strait Islander population**</b> (1 January 2020 to 7 October 2021)*	0.622% (locally acquired – 0.617%)	0.001% (locally acquired - 0.001%)	0.22% (locally acquired - 0.22%)
<b>General population – all cases</b> (1 January 2020 to 7 October 2021)*	0.498% (locally acquired - 0.467%)	0.006% (locally acquired - 0.006%)	1.21% (locally acquired – 1.26%)

\* Based on cases and deaths with an onset date up to 7 October 2021 due to the gap between onset and illness severity.

# Adjustment for the potential lag between onset and illness severity has not been able to be made, therefore case fatality rates may appear lower.

Among NDIS participants the following table is able to be provided. Please note a comparison between 2020 and 2021 is not currently available. DSS are working with the Commission to seek these data.

- Whilst additional population groups have also been included for comparison, as the data presented in the tables represent cases and associated deaths across both 2020 and 2021, cautious interpretation is required given the differing epidemic contexts, including with regarding to vaccination coverage over these periods.

**Table 2: COVID-19 cases and deaths among NDIS participants compared to other population groups, Australia, since 1 March 2020#**

Source: NINDSS extracted 22 October 2021 (except for Victoria where data was only current to 21 October 2021) and NDIS Quality and Safeguards Commission data as at 21 October 2021

Population Group	Cases (Percentage among relevant population group)	Deaths (Percentage among relevant population group)	Crude Case Fatality Rate <sup>^</sup>
<b>NDIS participants<sup>^</sup></b> (1 March 2020 to 21 October 2021)	0.141%	0.005%	3.96% <sup>^</sup>
<b>Aboriginal and Torres Strait Islander population<sup>**</sup></b> (1 March 2020 to 7 October 2021)*	0.622% (locally acquired – 0.617%)	0.001% (locally acquired - 0.001%)	0.22% (locally acquired - 0.22%)
<b>General population – all cases</b> (1 March 2020 to 7 October 2021)*	0.498% (locally acquired - 0.467%)	0.006% (locally acquired - 0.006%)	1.21% (locally acquired - 1.26%)

\* Based on cases and deaths with an onset date up to 7 October due to the gap between onset and illness severity.

<sup>^</sup> Approximately 54% (362 out of 674) of cases are currently considered to be active cases and therefore their outcome of illness is not yet known.

# As the data presented in the tables represent cases and associated deaths across both 2020 and 2021, cautious interpretation is required given the differing epidemic contexts, including with regard to vaccination coverage over these periods.

#### **Key data interpretation caveats:**

- Case fatality rates have changed over time and are influenced by the populations for which transmission occurs in, including their vulnerability for developing severe illness (eg. age and underlying illnesses); timeliness of seeking health care; the variants circulating; and vaccination coverage.
- NDIS participant cases:
  - Based on data reported by the Department of Social Services to Health and published at: <https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/coronavirus-covid-19-case-numbers-and-statistics>.
  - The specific cause of death is not reported (so it is possible it could have been un-related to COVID-19).
  - Approximately 54% (362 out of 674) of cases are currently considered to be active cases and therefore their outcome of illness is not yet known – based on 21 October 2021 reporting.
  - It is a condition of registration for registered National Disability Insurance Scheme (NDIS) providers to notify the NDIS Quality and Safeguards Commissioner of certain changes and events which substantially affect the provider's ability to provide the supports and services they are registered to provide. Section 13 and 13A of the NDIS (Provider Registration and Practice Standards) Rules 2018 sets out these requirements. Confirmed worker and participant infections are included in this notification process. While these requirements are in place, it is possible not all COVID-19 positive participant cases have been reported to the NDIS Commission.
- Residential aged care facility residents:
  - Whilst the period of analysis commences at an earlier date (January 2020 instead of 1 March 2020), it is understood that during this period cases in aged care were minimal and will not impact greatly on the rates presented.
- Aboriginal and Torres Strait Islander cases:
  - Since 1 January 2021, up to 14 October 2021, Indigenous status completeness in the NINDSS is 85% or higher for all jurisdictions, except Victoria where completeness is 75% and 73%, respectively.
- National Interoperable Notifiable Diseases Surveillance System (NINDSS) data for general population and Aboriginal and Torres Strait Islander cases:
  - To allow for the delay between developing symptoms and experiencing severe illness, cases with a symptom onset in the previous 14 days are excluded from this analysis.
  - Locally acquired cases have been included in this analysis to better represent the severity of COVID-19 in the Australian community context.
  - The definition of a COVID-19 associated death is:
    - A COVID-19 death is defined for surveillance purposes as a death in a confirmed COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID-19 (e.g. trauma).

There should be no period of complete recovery from COVID-19 between illness and death. Where a Coroner's report is available, these findings are to be observed.

## Severity of illness - Age Distribution

- In Australia, 0.7% of cases with onset up to 7 October 2021 have died. In addition to those who died, 1.4% required intensive care and a further 10.3% were hospitalised.
  - A higher proportion of cases in older age groups were admitted to hospital when compared to younger age groups. Two-thirds (66%) of deaths up to 7 October 2021 were in cases aged 70 years or more.
  - The risk of a case developing severe illness is influenced by a range of factors including vaccination status, age, underlying illnesses and timeliness of seeking health care.

### Key data interpretation caveats:

- Given the delay between onset and severe illness, cases with an onset in the last two weeks were excluded from the severity analysis.
- Note hospitalisation is not always reflective of severe illness as cases may be hospitalised for reasons other than clinical COVID-19 related care. Hospitalisation and ICU status in NINDSS may be incomplete.

Figure 1: Locally acquired cases by age group and highest level of illness severity, Australia, 2020

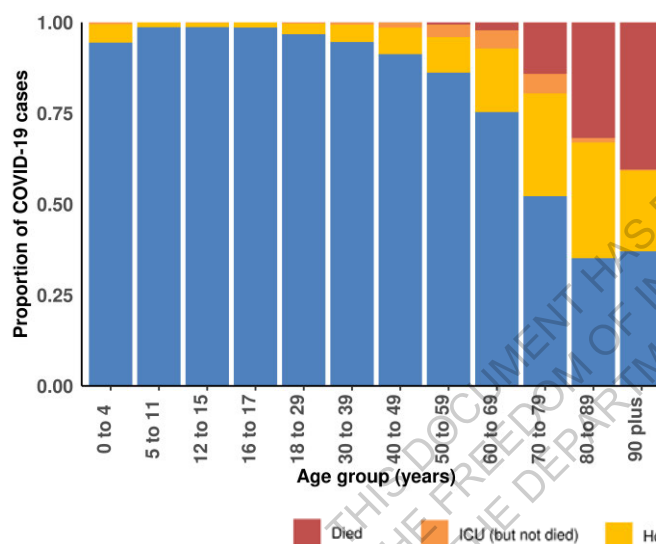
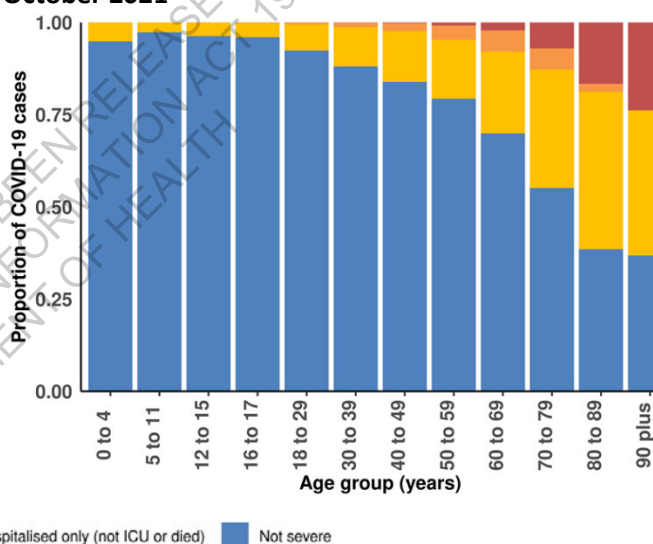


Figure 2: Locally acquired cases by age group and highest level of illness severity, Australia, 1 Jan to 7 October 2021



\* Excludes cases with a symptom onset within the last two weeks. Cases with no symptoms reported were excluded if the date of swab collection was in the last two weeks.

Table 3: COVID-19 cases by age and highest level of illness severity, Australia, 16 June to 7 October 2021\*

Source: NINDSS extracted 22 October 2021 (except for Victoria where data was only current to 21 October 2021)

Age group	Count					% of total cases by age group		
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died
0-4	6,342	337	5	0	6,684	5%	0.1%	0%
5-11	9,431	255	4	0	9,690	2.6%	<0.05%	0%
12-15	5,817	218	4	1	6,040	3.6%	0.1%	<0.05%
16-17	3,207	125	8	0	3,340	3.7%	0.2%	0%
18-29	23,152	1,771	123	7	25,053	7.1%	0.5%	<0.05%
30-39	15,070	1,821	206	10	17,107	10.6%	1.2%	0.1%
40-49	10,081	1,657	253	24	12,015	13.8%	2.1%	0.2%
50-59	7,125	1,437	349	72	8,983	16%	3.9%	0.8%
60-69	3,442	1,093	283	105	4,923	22.2%	5.7%	2.1%

70-79	1,277	745	132	163	2,317	32.2%	5.7%	7%
80-89	443	491	25	191	1,150	42.7%	2.2%	16.6%
90+	102	109	0	66	277	39.4%	0%	23.8%
Unknown	1	1	0	0	2	50%	0%	0%
Total	85,490	10,060	1,392	639	97,581	10.3%	1.4%	0.7%

\*Excludes cases with a symptom onset within the last two given the delay between onset and severe illness. Cases with no symptoms reported have been excluded if the date of swab collection was within the previous two weeks.

## Severity of illness – Vaccination status (ACT and NSW data only)

- Reliable data on the vaccination status of locally acquired COVID-19 cases are only available for New South Wales and the Australian Capital Territory.
  - Where known, the majority of locally acquired cases among those aged 12 years and over have occurred in unvaccinated individuals.
  - Between 16 June to 7 October 2021, four deaths were reported in fully vaccinated cases aged 12 to 69 years.
- The risk of a case developing severe illness is influenced by a range of factors including vaccination status, age, underlying illnesses and timeliness of seeking health care. Information on the extent to which COVID-19 contributed to death and the underlying illnesses of the individual case are not available.
- The table below cannot be used to understand the impact of the vaccination on severe illness.
  - Cases that are fully vaccinated represent vaccine breakthrough events. Breakthrough infections are expected among people who are fully vaccinated.
    - A breakthrough infection is when someone tests positive for COVID after being fully vaccinated, regardless of symptoms.
    - It is expected that the level of 'breakthrough infections' among those vaccinated will rise as vaccination coverage increases, but this does not mean the vaccines are not working.
  - Assessment of vaccination effectiveness relies on additional analyses to compare the vaccination status among cases and a non-case comparator group to assess the effectiveness of COVID-19 vaccines for a particular end-point eg. prevention of disease (symptoms) or severe outcomes.

### Key data interpretation caveats:

- Given the delay between onset and severe illness, cases with an onset in the last two weeks were excluded from the severity analysis.
- Cases in children aged less than 12 years were excluded from the severity analysis by vaccination states as they are not eligible for vaccination.
- Note hospitalisation and vaccination status may be incomplete.
- Note hospitalisation is not always reflective of severe illness as cases may be hospitalised for reasons other than clinical COVID-19 related care. Hospitalisation and ICU status in NINDSS may be incomplete.

**Table 4: Locally acquired cases aged 12 to 69 years by vaccination status and highest level of illness severity, New South Wales and Australian Capital Territory, 16 June to 7 October, 2021\***

Source: NINDSS extracted 22 October 2021

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
Fully vaccinated	2,231 (5.2%)	183 (2.9%)	17 (2.0%)	4 (2.3%)	2,435 (4.9%)
Partially vaccinated	4,060 (9.5%)	363 (5.8%)	33 (3.8%)	14 (8.0%)	4,470 (9.0%)
Single dose within 21 days of symptom onset**	6,733 (15.8%)	948 (15.0%)	112 (13.0%)	28 (16.0%)	7,821 (15.7%)
Not vaccinated	18,552 (43.6%)	3,075 (48.8%)	436 (50.6%)	115 (65.7%)	22,178 (44.4%)
Unknown	11,006 (25.8%)	1,736 (27.5%)	263 (30.5%)	14 (8.0%)	13,019 (26.1%)
<b>Total</b>	<b>42,582 (100.0%)</b>	<b>6,305 (100.0%)</b>	<b>861 (100.0%)</b>	<b>175 (100.0%)</b>	<b>49,923 (100.0%)</b>

\*Excluding cases with mixed vaccination regime or vaccinated outside of Australia. \*\*Insufficient time for the vaccine to take effect.

**Table 5: Locally acquired cases aged 70 to 79 years by vaccination status and highest level of illness severity, New South Wales and Australian Capital Territory, 16 June to 7 October ,2021\***

Source: NINDSS extracted 22 October 2021

Vaccination status	Not severe (no hospital or death)	Hospitalised only (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
Fully vaccinated	206 (24.2%)	93 (17.1%)	9 (8.4%)	18 (15.5%)	326 (20.1%)
Partially vaccinated	189 (22.2%)	70 (12.8%)	13 (12.1%)	14 (12.1%)	286 (17.7%)
Single dose within 21 days of symptom onset**	77 (9.1%)	64 (11.7%)	13 (12.1%)	15 (12.9%)	169 (10.4%)
Not vaccinated	165 (19.4%)	152 (27.9%)	39 (36.4%)	64 (55.2%)	420 (26.0%)
Unknown	213 (25.1%)	166 (30.5%)	33 (30.8%)	5 (4.3%)	417 (25.8%)
<b>Total</b>	850 (100.0%)	545 (100.0%)	107 (100.0%)	116 (100.0%)	1,618 (100.0%)

\* Excluding cases with mixed vaccination regime or vaccinated outside of Australia. \*\*Insufficient time for the vaccine to take effect.

**Table 6: Locally acquired cases aged 80 to 89 years by vaccination status and highest level of illness severity, New South Wales and Australian Capital Territory, 16 June to 7 October ,2021\***

Source: NINDSS extracted 22 October 2021

Vaccination status	Not severe (no hospital or death)	Hospitalised only (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
Fully vaccinated	94 (31.3%)	83 (23.4%)	1 (4.2%)	24 (16.8%)	202 (24.6%)
Partially vaccinated	57 (19.0%)	61 (17.2%)	5 (20.8%)	14 (9.8%)	137 (16.7%)
Single dose within 21 days of symptom onset**	21 (7.0%)	37 (10.5%)	3 (12.5%)	10 (7.0%)	71 (8.6%)
Not vaccinated	57 (19.0%)	90 (25.4%)	11 (45.8%)	87 (60.8%)	245 (29.8%)
Unknown	71 (23.7%)	83 (23.4%)	4 (16.7%)	8 (5.6%)	166 (20.2%)
<b>Total</b>	300 (100.0%)	354 (100.0%)	24 (100.0%)	143 (100.0%)	821 (100.0%)

\* Excluding cases with mixed vaccination regime or vaccinated outside of Australia. \*\*Insufficient time for the vaccine to take effect.

**Table 7: Locally acquired cases aged 90 years and over by vaccination status and illness severity, New South Wales and Australian Capital Territory, 16 June to 7 October ,2021\***

Source: NINDSS extracted 22 October 2021

Vaccination status	Not severe (no hospital or death)	Hospitalised only (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
Fully vaccinated	34 (57.6%)	28 (33.3%)	0 (-)	18 (34.6%)	80 (41.0%)
Partially vaccinated	3 (5.1%)	11 (13.1%)	0 (-)	9 (17.3%)	23 (11.8%)
Single dose within 21 days of symptom onset**	1 (1.7%)	5 (6.0%)	0 (-)	3 (5.8%)	9 (4.6%)
Not vaccinated	7 (11.9%)	16 (19.0%)	0 (-)	21 (40.4%)	44 (22.6%)
Unknown	14 (23.7%)	24 (28.6%)	0 (-)	1 (1.9%)	39 (20.0%)
<b>Total</b>	59 (100.0%)	84 (100.0%)	0 (-)	52 (100.0%)	195 (100.0%)

\*Excluding cases with mixed vaccination regime or vaccinated outside of Australia \*\*Insufficient time for the vaccine to take effect.

## International comparisons and marginalised groups

International reporting indicates that the impact of COVID-19 in terms of both morbidity and mortality is not equally distributed throughout the population, with a higher burden on racial and ethnic minority population, the elderly and marginalised groups. While comparable OECD case and death data by discrete groups is unavailable, a comparison of COVID-19 death data across the OECD for 2020 and 2021 has been included below for reference.

### Canada

- As at 28 September 2021, COVID-19 in First Nations people living on-reserve was 415.1 per 100,000 or 3.5 times the respective rate in the general Canadian population.<sup>1</sup>
- As at 13 October 2021, the total case fatality rate on first nation's reserves was 1%, as opposed to 1.7% in the total population.<sup>2</sup> However, Canada's Indigenous population has an average age of 32.1 years, with an average non-Indigenous age of 40.9 years.<sup>3</sup>
- As of 8 October 2021, those aged over 80 account for 4.6 per cent of Canada's total cases. However, they represent 25.1 per cent of the hospitalisations and 63.1 per cent of the fatalities.<sup>4</sup>
- Deaths in 'residential care facilities' (the majority of which are nursing homes or long-term care homes) accounted for more than 80% of Canada's COVID deaths in its first wave (03/2020-08/2020).<sup>5</sup>

### United States

- 'American Indian / Alaska Native, Non-Hispanic' account for 0.74% of the US population but have accounted for 1.1% of COVID deaths. This discrepancy was most notable in children. 'American Indian / Alaska Native, Non-Hispanic' account for 0.85% of both the US' 12-15 years and 5-11 years populations. However, they have accounted for 4.2% of the COVID deaths in 12-15 years and 2.5% in 5-11 years.<sup>6</sup>
- Those over 85 years accounts for 2% of the US population, however comprised 29.1% of the population.<sup>7</sup>
- A study across 547 U.S. health care organizations published in March 2021, found that having an intellectual disability was the strongest independent risk factor for presenting with a Covid-19 diagnosis and the strongest independent risk factor other than age for Covid-19 mortality.<sup>8</sup>
- The CDC reports that race and ethnicity are correlated to risk of infection, hospitalisation and death, with American Indian or Alaska Native, Non-Hispanic persons, Black or African American, Non-Hispanic persons and Hispanic or Latino persons at greater risk when compared to White, Non-Hispanic persons (Table 1 below).<sup>9</sup>

<sup>1</sup> [Confirmed cases of COVID-19 \(sac-isc.gc.ca\)](https://www.sac-isc.gc.ca) accessed 15/10/2021

<sup>2</sup> [Confirmed cases of COVID-19 \(sac-isc.gc.ca\)](https://www.sac-isc.gc.ca) accessed 15/10/2021

<sup>3</sup> [Key highlights from latest release of 2016 census data | CBC News](https://www.cbcnews.ca) accessed 15/10/2021

<sup>4</sup> [Epidemiological-summary-of-COVID-19-cases-in-Canada-Canada.ca.pdf](https://www150.statcan.gc.ca/n1/pub/82-625-x/2021001/article/00001-eng.htm) accessed 15/10/2021

<sup>5</sup> [Impacts of the COVID-19 pandemic in nursing and residential care facilities in Canada \(statcan.gc.ca\)](https://www150.statcan.gc.ca/n1/pub/82-625-x/2021001/article/00001-eng.htm) accessed 15/10/2021

<sup>6</sup> [CDC COVID Data Tracker](https://www.cdc.gov/covid19/data/) accessed 15/10/2021

<sup>7</sup> [CDC COVID Data Tracker](https://www.cdc.gov/covid19/data/) accessed 15/10/2021

<sup>8</sup> [The Devastating Impact of Covid-19 on Individuals with Intellectual Disabilities in the United States | Catalyst non-issue content \(neim.org\)](https://www.neim.org/) accessed 15/10/2021

<sup>9</sup> <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html>, accessed 15/10/2021.

**Table 8 Rate ratios of cases, hospitalisation and deaths by ethnicity compared to White, Non-Hispanic persons in the United States of America**

Rate ratios compared to White, Non-Hispanic persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non-Hispanic persons	Black or African American, Non-Hispanic persons	Hispanic or Latino persons
Cases <sup>1</sup>	1.7x	0.7x	1.1x	1.9x
Hospitalization <sup>2</sup>	3.5x	1.0x	2.8x	2.8x
Death <sup>3</sup>	2.4x	1.0x	2.0x	2.3x

**United Kingdom**

- Between 24 January and 20 November 2020 in England, the risk of death involving COVID-19 was 3.1 times greater for more-disabled men and 1.9 times greater for less-disabled men, compared with non-disabled men; among women, the risk of death was 3.5 times greater for more-disabled women and 2.0 times greater for less-disabled women, compared with non-disabled women.<sup>10</sup>
- Disabled people made up 6 in 10 (59.5%) of all deaths involving COVID-19 for the period to 20 November 2020 (30,296 of 50,888 deaths). For comparison, disabled people made up 17.2% of the population included in the study published by the UK Office for National Statistics.<sup>11</sup>
- A study published October 2021 found that people with learning disabilities are at substantially increased risk of COVID-19 mortality during the first two waves of the COVID-19 pandemic in England, detailing that people with a learning disability were approximately 4–5 times more likely to be admitted to hospital for COVID-19, and 7–8 times more likely to die from causes involving COVID-19 than those without a learning disability.<sup>12</sup>

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<sup>10</sup> [Updated estimates of coronavirus \(COVID-19\) related deaths by disability status, England - Office for National Statistics \(ons.gov.uk\)](#) accessed 15/10/2021

<sup>11</sup> [Updated estimates of coronavirus \(COVID-19\) related deaths by disability status, England - Office for National Statistics \(ons.gov.uk\)](#) accessed 15/10/2021

<sup>12</sup> [Deaths involving COVID-19 by self-reported disability status during the first two waves of the COVID-19 pandemic in England: a retrospective, population-based cohort study - The Lancet Public Health](#) accessed 15/10/2021

## OECD Countries – COVID-19 Mortality – 2021 and Cumulative

COVID-19 mortality data was extracted from [Our World in Data](#) on 22/10/2021, with data extracted for the period 01/01/2020 to 20/10/2021. Countries are ordered from highest to lowest cumulative deaths per 100,000 population. Data is derived from open source reporting and is subject to revision. COVID-19 reporting is dependent on individual countries' health reporting systems and may not be directly comparable.

OECD Country	Cumulative deaths per 100,000 population (01/01/2021-20/10/2021)	Cumulative deaths (Total)	Cumulative deaths per 100,000 population (Total)
Hungary	217.05	30,448	316.04
Czechia	177.11	30,574	285.08
Colombia	163.30	126,931	247.59
Slovakia	196.57	12,872	235.72
Slovenia	94.14	4,654	223.89
Belgium	54.06	25,816	221.93
United States	114.00	731,263	219.65
Italy	95.30	131,688	218.14
Mexico	119.20	281,075	215.78
Lithuania	138.11	5,511	204.88
United Kingdom	96.50	139,444	204.44
Poland	126.00	76,179	201.55
Chile	109.41	37,628	195.85
Spain	77.54	87,082	186.29
Portugal	110.18	18,109	178.10
France	79.25	118,300	175.09
Latvia	123.68	2,944	157.69
Greece	102.66	15,485	149.31
Sweden	61.59	14,985	147.49
Costa Rica	91.65	6,895	134.17
Luxembourg	54.66	842	132.64
Switzerland	37.86	11,173	128.20
Austria	55.15	11,209	123.95
Germany	72.82	94,886	113.09
Netherlands	41.83	18,709	108.94
Estonia	91.23	1,438	108.51
Ireland	62.85	5,369	107.75
Israel	53.52	8,029	91.34
Turkey	55.73	68,274	80.28
Canada	33.98	28,698	75.39
Denmark	24.05	2,696	46.38
Finland	10.31	1,133	20.42
Norway	8.36	893	16.34
Japan	11.80	18,166	14.41
Iceland	1.16	33	9.61
Australia	2.64	1,590	6.17
South Korea	3.49	2,709	5.28
New Zealand	0.06	28	0.58



**From:** s22  
**To:** s22  
**Cc:** s22  
**Subject:** RE: Query re Weekly Surveillance Report data [SEC=OFFICIAL]  
**Date:** Tuesday, 16 November 2021 10:06:59 PM  
**Attachments:** [Vaccination status and illness severity \(10 year age groups\).xlsx](#)  
[image001.png](#)

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Hi s22,

Sorry, this took longer than expected,. Hopefully you can pass it on first thing tomorrow.

This aligns with Table 2 from the Weekly Epi report and has been reconfigured into 10 year age groups.

Locally acquired cases aged 12 years and over by vaccination status and highest level of illness severity, New South Wales and Australian Capital Territory, 1 January to 31 October 2021 (two weeks delay)\*

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**From:** s22 <s22@health.gov.au>  
**Sent:** Monday, 15 November 2021 6:34 PM  
**To:** s22 <s22@health.gov.au>; s22 s22@health.gov.au>  
**Cc:** s22 s22@health.gov.au>; s22 s22@Health.gov.au>  
**Subject:** RE: Query re Weekly Surveillance Report data [SEC=OFFICIAL]

Hi s22 and s22 ,

Grateful for your assistance regarding the below request from Paul Armstrong in WA to inform their local modelling.

Paul/WA has requested the data in Table 2 (detailing infection severity by vaccination status) be provided by 5 or 10 year age group groups (alternatively, including the vaccination status in Table 1).

This request was presented and agreed to by CDNA – although at the time I had thought Paul had just wanted to use the tables already in the report, but the modellers have sought the additional age breakdowns, which the broader discussions at CDNA supported.

Suggest for the 12 year age band this is provided as an 8 year group, with the remainder in the standard 10 year groupings, and that today's report extract is used for comparability.

Their modellers are seeking these by Tuesday to inform their next round of modelling.

Apologies for my misunderstanding of the request and now its urgency!

Kind regards, s22

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**From:** s22 <s22@health.gov.au>

**Sent:** Thursday, 28 October 2021 11:43 AM  
**To:** Armstrong, Paul <[Paul.Armstrong@health.wa.gov.au](mailto:Paul.Armstrong@health.wa.gov.au)>  
**Cc:** LANCASTER, Megan <[Megan.LANCASTER@Health.gov.au](mailto:Megan.LANCASTER@Health.gov.au)>; s22 <[s22@health.gov.au](mailto:s22@health.gov.au)>; s22 <[s22@Health.gov.au](mailto:s22@Health.gov.au)>; NOJA, Marcelle <[Marcelle.Noja@health.gov.au](mailto:Marcelle.Noja@health.gov.au)>; s22 <[s22@health.gov.au](mailto:s22@health.gov.au)>  
**Subject:** RE: Query re Weekly Surveillance Report data [SEC=OFFICIAL]

Good afternoon Paul,

We have followed up internally and whilst no concerns have been raised regarding your proposed use of this report within WA Health to support your modelling team's work. However, as the report presents analyses of specific state and territory data, we will raise this at CDNA JEG on Monday – this will also provide an opportunity for other JEG member's to note any other internal uses of the report within their jurisdiction.

Apologies for not getting back to you sooner.

Kind regards, s22

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**From:** NOJA, Marcelle <[Marcelle.Noja@health.gov.au](mailto:Marcelle.Noja@health.gov.au)>  
**Sent:** Wednesday, 20 October 2021 8:16 PM  
**To:** [paul.armstrong@health.wa.gov.au](mailto:paul.armstrong@health.wa.gov.au); s22 <[s22@health.gov.au](mailto:s22@health.gov.au)>  
**Subject:** RE: Query re Weekly Surveillance Report data [SEC=OFFICIAL]

Hi Paul

We'll need to seek approval, but will get back to you ASAP.

Marcelle

---

**From:** Armstrong, Paul <[Paul.Armstrong@health.wa.gov.au](mailto:Paul.Armstrong@health.wa.gov.au)>  
**Sent:** Wednesday, 20 October 2021 1:49 PM  
**To:** s22 <[s22@health.gov.au](mailto:s22@health.gov.au)>  
**Cc:** NOJA, Marcelle <[Marcelle.Noja@health.gov.au](mailto:Marcelle.Noja@health.gov.au)>  
**Subject:** Query re Weekly Surveillance Report data

**REMINDER:** Think before you click! This email originated from outside our organisation. Only click links or open attachments if you recognise the sender and know the content is safe.

Hi s22,

The Weekly Surveillance Report is providing excellent information that helps to chart our way forward, so many thanks to you and the team for providing it. The modelling team here in the Department are keen to use some of the data in the report to refine their modelling assumptions. First, can I confirm that I can share the report with them. Second, presuming that's the case, could I request that the data in Table 2 (detailing infection severity by vaccination

status) be provided by 5 or 10 year age group groups (alternatively, including the vaccination status in Table 1). They would need this to impute the hospitalisation rates at a more granular level.

Thanks for considering this.

Paul

**Dr Paul Armstrong**  
**Deputy Chief Health Officer**  
**Director, Communicable Disease Control Directorate**  
**WA Department of Health**

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BY THE DEPARTMENT OF HEALTH

Locally acquired cases aged 12 years and over by vaccination status and highest level of illness severity, New South Wales and Australian Capital Territory, 1 January to 31 October 2021 (two weeks delay)\*

Vaccination by highest level of severity, 12-19

vaccination_s	Not severe	Hospitalised	o ICU (but not d	Died	Total
Fully vaccinat	52 (1%)	1 (0%)	0 (0%)	0 (0%)	53 (1%)
Partially vacci	301 (3%)	11 (2%)	2 (8%)	0 (0%)	314 (3%)
Single dose w	762 (9%)	49 (10%)	3 (12%)	0 (0%)	814 (9%)
Unknown	2,024 (23%)	86 (18%)	3 (12%)	0 (0%)	2,113 (22%)
Not vaccinate	5,784 (65%)	323 (69%)	18 (69%)	1 (100%)	6,126 (65%)
Total	8,923 (100%)	470 (100%)	26 (100%)	1 (100%)	9,420 (100%)

Vaccination by highest level of severity, 20-29

vaccination_s	Not severe	Hospitalised	o ICU (but not d	Died	Total
Fully vaccinat	476 (4%)	23 (2%)	1 (1%)	0 (0%)	500 (4%)
Partially vacci	1,159 (9%)	64 (5%)	0 (0%)	0 (0%)	1,223 (9%)
Single dose w	2,215 (17%)	182 (13%)	7 (6%)	1 (17%)	2,405 (17%)
Unknown	3,065 (24%)	357 (26%)	28 (25%)	0 (0%)	3,450 (24%)
Not vaccinate	5,798 (46%)	753 (55%)	75 (68%)	5 (83%)	6,631 (47%)
Total	12,713 (100%)	1,379 (100%)	111 (100%)	6 (100%)	14,209 (100%)

Vaccination by highest level of severity, 30-39

vaccination_s	Not severe	Hospitalised	o ICU (but not d	Died	Total
Fully vaccinat	730 (7%)	29 (2%)	1 (1%)	0 (0%)	760 (6%)
Partially vacci	1,240 (12%)	99 (7%)	11 (7%)	1 (7%)	1,351 (11%)
Single dose w	1,839 (17%)	211 (14%)	25 (15%)	1 (7%)	2,076 (17%)
Unknown	2,562 (24%)	380 (25%)	34 (20%)	0 (0%)	2,976 (24%)
Not vaccinate	4,271 (40%)	777 (52%)	97 (58%)	13 (87%)	5,158 (42%)
Total	10,642 (100%)	1,496 (100%)	168 (100%)	15 (100%)	12,321 (100%)

Vaccination by highest level of severity, 40-49

vaccination_s	Not severe	Hospitalised	o ICU (but not d	Died	Total
Fully vaccinat	683 (9%)	48 (4%)	2 (1%)	0 (0%)	733 (8%)
Partially vacci	911 (13%)	76 (6%)	8 (4%)	2 (8%)	997 (11%)
Single dose w	1,214 (17%)	210 (16%)	32 (15%)	0 (0%)	1,456 (16%)
Unknown	1,746 (24%)	389 (29%)	58 (27%)	1 (4%)	2,194 (25%)
Not vaccinate	2,687 (37%)	625 (46%)	112 (53%)	22 (88%)	3,446 (39%)
Total	7,241 (100%)	1,348 (100%)	212 (100%)	25 (100%)	8,826 (100%)

Vaccination by highest level of severity, 50-59

vaccination_s	Not severe	Hospitalised	o ICU (but not d	Died	Total
Fully vaccinat	637 (13%)	59 (5%)	7 (3%)	4 (7%)	707 (11%)
Partially vacci	686 (14%)	78 (7%)	12 (4%)	3 (5%)	779 (12%)
Single dose w	823 (17%)	196 (17%)	39 (14%)	14 (23%)	1,072 (17%)
Unknown	1,156 (23%)	286 (25%)	76 (28%)	6 (10%)	1,524 (24%)
Not vaccinate	1,645 (33%)	533 (46%)	139 (51%)	34 (56%)	2,351 (37%)
Total	4,947 (100%)	1,152 (100%)	273 (100%)	61 (100%)	6,433 (100%)

Vaccination by highest level of severity, 60-69

vaccination_s	Not severe	Hospitalised	o ICU (but not d	Died	Total
Fully vaccinat	445 (18%)	68 (8%)	11 (5%)	2 (2%)	526 (14%)
Partially vacci	512 (20%)	102 (12%)	7 (3%)	10 (10%)	631 (17%)
Single dose w	321 (13%)	146 (17%)	20 (9%)	20 (20%)	507 (14%)
Unknown	582 (23%)	235 (27%)	61 (29%)	5 (5%)	883 (24%)
Not vaccinate	655 (26%)	317 (37%)	112 (53%)	61 (62%)	1,145 (31%)
Total	2,515 (100%)	868 (100%)	211 (100%)	98 (100%)	3,692 (100%)

Vaccination by highest level of severity, 70-79

vaccination_s	Not severe	Hospitalised	o ICU (but not d	Died	Total
Fully vaccinat	250 (25.9%)	105 (18.2%)	10 (8.0%)	22 (16.7%)	387 (21.5%)
Partially vacci	213 (22.1%)	79 (13.7%)	12 (9.6%)	16 (12.1%)	320 (17.8%)
Single dose w	82 (8.5%)	67 (11.6%)	15 (12.0%)	16 (12.1%)	180 (10.0%)
Not vaccinate	183 (19.0%)	160 (27.7%)	49 (39.2%)	73 (55.3%)	465 (25.8%)
Unknown	236 (24.5%)	167 (28.9%)	39 (31.2%)	5 (3.8%)	447 (24.8%)
Total	964 (100.0%)	578 (100.0%)	125 (100.0%)	132 (100.0%)	1,799 (100.0%)

Vaccination by highest level of severity, 80-89

vaccination_s	Not severe	Hospitalised	o ICU (but not d	Died	Total
Fully vaccinat	114 (32.9%)	83 (22.1%)	2 (7.1%)	31 (19.4%)	230 (25.3%)
Partially vacci	64 (18.4%)	62 (16.5%)	5 (17.9%)	19 (11.9%)	150 (16.5%)
Single dose w	21 (6.1%)	39 (10.4%)	3 (10.7%)	10 (6.2%)	73 (8.0%)
Not vaccinate	63 (18.2%)	98 (26.1%)	14 (50.0%)	93 (58.1%)	268 (29.5%)
Unknown	85 (24.5%)	93 (24.8%)	4 (14.3%)	7 (4.4%)	189 (20.8%)
Total	347 (100.0%)	375 (100.0%)	28 (100.0%)	160 (100.0%)	910 (100.0%)

Vaccination by highest level of severity, 90+

vaccination_s	Not severe	Hospitalised	o ICU (but not d	Died	Total
Fully vaccinat	46 (59.7%)	33 (35.5%)	0 (0.0%)	24 (38.7%)	103 (44.2%)
Partially vacci	5 (6.5%)	12 (12.9%)	0 (0.0%)	9 (14.5%)	26 (11.2%)
Single dose w	1 (1.3%)	5 (5.4%)	0 (0.0%)	3 (4.8%)	9 (3.9%)
Not vaccinate	8 (10.4%)	17 (18.3%)	1 (100.0%)	25 (40.3%)	51 (21.9%)
Unknown	17 (22.1%)	26 (28.0%)	0 (0.0%)	1 (1.6%)	44 (18.9%)
Total	77 (100.0%)	93 (100.0%)	1 (100.0%)	62 (100.0%)	233 (100.0%)

## COVID-19 severity of illness by vaccination status

### PMO Request – 16 November 2021

Based on confirmed locally acquired confirmed cases in the National Interoperable Notifiable Diseases Surveillance System (NINDSS) from states and territories up to 14 November 2021

#### Note data presented are for ACT and NSW only

- Reliable data on the vaccination status of locally acquired COVID-19 cases are only available for New South Wales and the Australian Capital Territory.
  - Where known, the majority of locally acquired cases among those aged 12 years and over have occurred in unvaccinated individuals.
  - Between 16 June to 31 October 2021, six deaths were reported in fully vaccinated cases aged 12 to 69 years.
- The risk of a case developing severe illness is influenced by a range of factors including vaccination status, age, underlying illnesses and timeliness of seeking health care. Information on the extent to which COVID-19 contributed to death and the underlying illnesses of the individual case are not available.
- The tables below cannot be used to understand the impact of vaccination on severe illness.
  - Cases that are fully vaccinated represent vaccine breakthrough events. Breakthrough infections are expected among people who are fully vaccinated.
    - A breakthrough infection is when someone tests positive for COVID after being fully vaccinated, regardless of symptoms.
    - It is expected that the level of 'breakthrough infections' among those vaccinated will rise as vaccination coverage increases, but this does not mean the vaccines are not working.
  - Assessment of vaccination effectiveness relies on additional analyses to compare the vaccination status among cases and a non-case comparator group to assess the effectiveness of COVID-19 vaccines for a particular end-point eg. prevention of disease (symptoms) or severe outcomes.
- NSW Health have released an In Focus report on the effectiveness of vaccination among COVID-19 cases in the NSW Delta outbreak on their website, available here <https://www.health.nsw.gov.au/Infectious/covid-19/Documents/in-focus/covid-19-vaccination-case-surveillance-051121.pdf>
  - The COVID-19 case rate among 2-dose vaccinated people was 49.5 per 100,000 while in unvaccinated people it was 561 per 100,000, a more than 10-fold difference.
  - The rates of COVID-19 ICU admissions or deaths peaked in the fortnight 8 September to 21 September at 0.9 per 100,000 in 2-dose vaccinated people compared to 15.6 per 100,000 in unvaccinated people, a greater than 16-fold difference.

#### Key data interpretation caveats:

- Given the delay between onset and severe illness, cases with an onset in the last 14 days were excluded from the severity analysis.
- Cases in children aged less than 12 years were excluded from the severity analysis by vaccination status as they are not eligible for vaccination.
- Note hospitalisation and vaccination status may be incomplete.
- Note hospitalisation is not always reflective of severe illness as cases may be hospitalised for reasons other than clinical COVID-19 related care. Hospitalisation and ICU status in NINDSS may be incomplete.

**Table 1: Locally acquired cases aged 12 to 69 years by vaccination status and highest level of illness severity, New South Wales and Australian Capital Territory, 1 January to 31 October 2021 (two weeks delay)\***

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
Fully vaccinated	3,023 (6.4%)	228 (3.4%)	22 (2.2%)	6 (2.9%)	3,279 (6.0%)
Partially vaccinated	4,809 (10.2%)	430 (6.4%)	40 (4.0%)	16 (7.8%)	5,295 (9.6%)
Single dose within 21 days of symptom onset**	7,174 (15.3%)	994 (14.8%)	126 (12.6%)	36 (17.5%)	8,330 (15.2%)
Not vaccinated	20,840 (44.4%)	3,328 (49.6%)	553 (55.2%)	136 (66.0%)	24,857 (45.3%)
Unknown	11,135 (23.7%)	1,733 (25.8%)	260 (26.0%)	12 (5.8%)	13,140 (23.9%)
<b>Total</b>	<b>46,981 (100.0%)</b>	<b>6,713 (100.0%)</b>	<b>1,001 (100.0%)</b>	<b>206 (100.0%)</b>	<b>54,901 (100.0%)</b>

\* confirmed cases only, source of infection is locally acquired, interstate acquired or under investigation (excludes overseas acquired and excludes blanks); symptom onset date between 1 January 2021 and date of data minus 14 days (inclusive) If there is no symptom onset date, the date of swab collection is used; NSW and ACT cases only; excludes cases with mixed vaccination regime or vaccinated outside of Australia; \*\*Insufficient time for the vaccine to take effect.

**Table 2: Locally acquired cases aged 70 to 79 years by vaccination status and highest level of illness severity, New South Wales and Australian Capital Territory, 1 January to 31 October 2021 (two weeks delay)\***

Vaccination status	Not severe (no hospital or death)	Hospitalised only (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
Fully vaccinated	250 (25.9%)	105 (18.2%)	10 (8.0%)	22 (16.7%)	387 (21.5%)
Partially vaccinated	213 (22.1%)	79 (13.7%)	12 (9.6%)	16 (12.1%)	320 (17.8%)
Single dose within 21 days of symptom onset**	82 (8.5%)	67 (11.6%)	15 (12.0%)	16 (12.1%)	180 (10.0%)
Not vaccinated	183 (19.0%)	160 (27.7%)	49 (39.2%)	73 (55.3%)	465 (25.8%)
Unknown	236 (24.5%)	167 (28.9%)	39 (31.2%)	5 (3.8%)	447 (24.8%)
<b>Total</b>	<b>964 (100.0%)</b>	<b>578 (100.0%)</b>	<b>125 (100.0%)</b>	<b>132 (100.0%)</b>	<b>1,799 (100.0%)</b>

\* confirmed cases only, source of infection is locally acquired, interstate acquired or under investigation (excludes overseas acquired and excludes blanks); symptom onset date between 1 January 2021 and date of data minus 14 days (inclusive) If there is no symptom onset date, the date of swab collection is used; NSW and ACT cases only; excludes cases with mixed vaccination regime or vaccinated outside of Australia; \*\*Insufficient time for the vaccine to take effect.

**Table 3: Locally acquired cases aged 80 to 89 years by vaccination status and highest level of illness severity, New South Wales and Australian Capital Territory, 1 January to 31 October 2021 (two weeks delay)\***

Vaccination status	Not severe (no hospital or death)	Hospitalised only (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
Fully vaccinated	114 (32.9%)	83 (22.1%)	2 (7.1%)	31 (19.4%)	230 (25.3%)
Partially vaccinated	64 (18.4%)	62 (16.5%)	5 (17.9%)	19 (11.9%)	150 (16.5%)
Single dose within 21 days of symptom onset**	21 (6.1%)	39 (10.4%)	3 (10.7%)	10 (6.2%)	73 (8.0%)
Not vaccinated	63 (18.2%)	98 (26.1%)	14 (50.0%)	93 (58.1%)	268 (29.5%)
Unknown	85 (24.5%)	93 (24.8%)	4 (14.3%)	7 (4.4%)	189 (20.8%)
<b>Total</b>	<b>347 (100.0%)</b>	<b>375 (100.0%)</b>	<b>28 (100.0%)</b>	<b>160 (100.0%)</b>	<b>910 (100.0%)</b>

\* confirmed cases only, source of infection is locally acquired, interstate acquired or under investigation (excludes overseas acquired and excludes blanks); symptom onset date between 1 January 2021 and date of data minus 14 days (inclusive) If there is no symptom onset date, the date of swab collection is used; NSW and ACT cases only; excludes cases with mixed vaccination regime or vaccinated outside of Australia; \*\*Insufficient time for the vaccine to take effect.

**Table 4: Locally acquired cases aged 90 years and over by vaccination status and illness severity, New South Wales and Australian Capital Territory, 1 January to 31 October 2021 (two weeks delay)\***

Vaccination status	Not severe (no hospital or death)	Hospitalised only (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
Fully vaccinated	46 (59.7%)	33 (35.5%)	0 (0.0%)	24 (38.7%)	103 (44.2%)
Partially vaccinated	5 (6.5%)	12 (12.9%)	0 (0.0%)	9 (14.5%)	26 (11.2%)
Single dose within 21 days of symptom onset**	1 (1.3%)	5 (5.4%)	0 (0.0%)	3 (4.8%)	9 (3.9%)
Not vaccinated	8 (10.4%)	17 (18.3%)	1 (100.0%)	25 (40.3%)	51 (21.9%)
Unknown	17 (22.1%)	26 (28.0%)	0 (0.0%)	1 (1.6%)	44 (18.9%)
<b>Total</b>	<b>77 (100.0%)</b>	<b>93 (100.0%)</b>	<b>1 (100.0%)</b>	<b>62 (100.0%)</b>	<b>233 (100.0%)</b>

\* confirmed cases only, source of infection is locally acquired, interstate acquired or under investigation (excludes overseas acquired and excludes blanks); symptom onset date between 1 January 2021 and date of data minus 14 days (inclusive) If there is no symptom onset date, the date of swab collection is used; NSW and ACT cases only; excludes cases with mixed vaccination regime or vaccinated outside of Australia; \*\*Insufficient time for the vaccine to take effect.

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**From:** s22  
**To:** KELLY, Paul  
**Cc:** CAIRNS, Allison; NORRIS, Sarah; DAVIS, Steph; s22 ; LANCASTER, Megan; s22 ; BENNETT, Sonya; s22 ; KIDD, Michael; MCMILLAN, Alison; PATERSON, Carolyn; s22 s22 ; MURPHY, Brendan; s22 ; SHAKESPEARE, Penny; LY, Michael; s22 s22 MCBRIDE, Paul; s22 s22 s22 s22 s22 s22 s22 s22 ; Irvais; s22 LUM, Garv; s22 MANSELL, Victoria; s22 POWELL, BALMANNQ, Rachel; s22 RINGWOOD, Leanne; WALLENSKY, Louise; AGELL, Anita; GRIEVE, Jodie; HARPER, Emily; MILLER, Steve; s22  
**Subject:** Omicron Morning Briefing - Media talking points - 10 January 2022 [SEC=OFFICIAL]  
**Date:** Monday, 10 January 2022 8:14:29 AM  
**Attachments:** 20220110 Media Briefing - Omicron.docx

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Good morning Paul,

The **Monday** morning brief for you is the Omicron Media Talking Points for **10 January 2022**.

### **Domestic –**

There have officially been **72,238 confirmed** COVID-19 cases reported in Australia.

NSW, Queensland, and South Australia have reported that omicron is likely to be the dominant variant in newly reported cases within their respective jurisdictions.

### **International –**

Globally, there have been at least **552,191** confirmed cases of the Omicron variant reported by at least **150** countries.

The omicron variant now exceeds **90%** of new cases in the USA (**95%**), UK (**96%**), Iceland (**90%**), Ireland (**92%**), Denmark (**94%**), Portugal (**90%**), Belgium (**86%**), Italy (**60%**), Switzerland (**61%**), Norway (**65%**), Estonia (**71%**), Slovenia (**67%**), Lebanon (**65%**), Hungary (**78%**), Lithuania (**90%**), Colombia (**62%**), Greece (**89%**) and Netherlands (**51%**).

-

### **Key News announcements**

#### **Transmissibility**

- The window between infection and infectiousness may be shorter for the Omicron variant than the delta variant. The shortness of Omicron incubation period gives sufferers a shorter window between suspecting they have contracted the virus and experiencing side effects. ([Independent](#))

#### **Vaccines**

- Vaccines remain the best defence against Omicron variant and others. ([The Conversation](#))

#### **Testing**

- Some research suggests that rapid antigen tests may be less sensitive to Omicron than they are to other variants. ([Wall Street Journal](#))

Kind regards,

National Incident Centre



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## Omicron Talking Points

10 January 2022 - Updated 0800

### OMICRON IN AUSTRALIA

- The COVID-19 variant 'Omicron' was first identified in Southern Africa and the World Health Organization labelled a Variant of Concern on 26 November 2021. It is the 13th variant of concern we have become aware of.
- Omicron case numbers continue to increase in Australia and globally.
- **International** – Globally, there have been at least **552,191** confirmed cases reported by at least **150** countries.
  - The omicron variant now exceeds **90%** of new cases in the USA (**95%**), UK (**96%**), Iceland (90%), Ireland (**92%**), Denmark (**94%**), Portugal (**90%**), Belgium (**86%**), Italy (60%), Switzerland (**61%**), **Norway (65%)**, **Estonia (71%)**, **Slovenia (67%)**, **Lebanon (65%)**, **Hungary (78%)**, **Lithuania (90%)**, **Colombia (62%)**, **Greece (89%)** and Netherlands (51%).
- Australia continues to work with our international partners on an ongoing basis to assess the evidence. We are responding quickly and decisively to changing information to continue to protect all Australians.
- Australians can be reassured that we have identified this variant early and have acted quickly on the medical advice.
- Omicron continues to show greater infectivity than the Delta variant, but with less severity.
- We know that the current vaccines remain effective against severe disease and death, and that a number of treatments for severe COVID-19 remain effective.
- We also know that boosters do indeed boost that protection, both against transmission and infection, and against severe disease back to the sort of levels we have seen with two doses for Delta.
- 42 per cent of those eligible for boosters have had a booster, noting eligibility for booster doses changed on 4 January 2022 for all Australians over 18 years old and have had their second dose of COVID-19 vaccination at least four months ago.
- I encourage you to get your vaccine booster as soon as you can.

### AUSTRALIA'S COVID-19 RESPONSE IS ADAPTING AND CONTINUES TO BE EFFECTIVE

- The Australian Government responds quickly to changing information and circumstances.
- National Cabinet has updated testing and quarantine requirements in the context of high case numbers and the Omicron variant, so that Australians can continue to live with COVID-19.
- Australians can now use RAT tests and PCR tests to determine if they are a positive case.
- The Commonwealth will provide 10 million RATs to states and territories (a combination of predominantly Point of Care Tests and self tests) to assist with testing and laboratory capacity.

- The isolation period for COVID-19 cases is 7 days from the date of their positive test in all states except South Australia, where it is 10 days.
- I have every confidence in the systems and processes Australia has built to manage this virus and the ability of our public health, laboratory and clinical care systems to adapt and respond.
- There will be challenges but we will continue to adapt based on what we know works.
- Importantly, we continue to rely on the cooperation of the Australian people to look after each other and follow the advice from our reliable, evidence based official sources.

## OMICRON AND INTERNATIONAL TRAVEL

- Australian authorities continue to monitor the situation around the world and are quick to advise the Government when steps need to be taken to protect Australians.
- Our testing regime has been good at identifying COVID-19 cases among incoming travellers and our border settings and quarantine requirements continue to manage positive cases effectively.
- All arrivals to Australia require a negative COVID-19 Polymerase Chain Reaction (PCR) test (nose and throat) within three days of travel and by law must complete Australian traveller declaration forms declaring their vaccination status and confirming that they are aware of state and territory public health requirements.
- In line with other countries, including the United Kingdom, the border measures under the Biosecurity Act 2015 restricting travellers who have been in the eight Southern African countries from entering Australia has now ceased.
- Given the global spread of Omicron, international border bans are no longer a proportionate or effective means to contain the spread of Omicron.
- At this stage there are no direct flights from Southern Africa to Australia and only Australian citizens, permanent residents, immediate family members, eligible visa holders and travellers from an exempt category are able to enter Australia.

## GENERAL COVID-19 CASES UPDATE:

Of note in Australia, as of **09 January 2021**:

\*A total of **72,238** cases were reported nationally, including:

NSW – **30,062** cases,

Vic – **22,104** cases,

QLD – **13,680** cases,

ACT – **1,039** cases,

TAS – **599** cases,

NT – **246** cases,

WA – **2** cases,

SA – **4,506** cases.

In the most recent 24-hour period there were **22** deaths reported in Australia, **16** in NSW, **4** in Vic, **1** in QLD, and **1** in SA.

A total of 299 cases are in ICU, with 78 of those ventilated. There has been an increase in total hospitalised cases nationally in the past week (02 January 2022 to 09 January 2022) from 1,978 to 5,097. ICU numbers have also increased from 148 to 299. Ventilated cases have also increased from 51 to 70. This national increase is mostly due to NSW. In NSW, hospitalised cases have risen from 1,069 to 1,930 in the past week, ICU numbers from 83 to 150 and ventilated cases from 27 to 45.

### Summary

Since the start of the pandemic, there have been 922,892 cases and 2,367 individuals have died from COVID-19 in Australia.

In 2020, there were 28,422 cases of COVID-19, and 908 deaths formally notified to the Commonwealth.

In 2021, there were 367,082 cases of COVID-19, and 1,349 deaths formally notified to the Commonwealth.

\* Data are current at the specified time point and are subject to state and territory retrospective revisions.

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SENATE SELECT COMMITTEE  
January 2022

FAS BRIEF – KEY INFORMATION

OHPR Brief **XX**

**COVID-19 – Case Fatality Rate in OECD countries**

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**KEY FACTS**

- The Case Fatality Rate (CFR) is a measure of disease lethality and can change with different treatments, availability of hospital care and medications.
- The CFR will vary with different variants of COVID-19. Reports suggest that the Omicron variant is substantially less lethal (lower CFR) than other variants.
- When used in a comparative way, CFR can be a measure of the relative availability and quality of medication and medical treatment.
- Australia’s current CFR of 0.14% is 26<sup>th</sup> highest out of the 39 OECD countries. It is 1/20<sup>th</sup> of the observed rate in Hungary and Poland and half of that reported in the USA (See table in Attachment).
- The high PCR test positivity rate, lack of RATs and problems with reporting of RAT results means that case numbers reported in Australia are likely significantly higher than official reports. This means that the real CFR is likely to be lower than the reported rate of 0.14%.

**FUNDING**

N/A

**ATTACHMENTS**

Case Fatality Rates for the week ending 18 January 2022 in OECD countries

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**CONTENTIOUS ISSUES**

The Case Fatality Rate is only a meaningful measure if the number of cases is accurately known. In Australia, since the start of the Omicron wave, official reports of case numbers are likely to be significantly underestimated and the Case Fatality Rate will therefore be inflated.

**ATTACHMENT - Case Fatality Rates for the week ending 18 January 2022 in OECD countries**

Country	CFR
Hungary	3.25
Poland	3.01
Mexico	1.58
Slovakia	1.50
Chile	1.31
Latvia	1.16
Colombia	1.14
Japan	1.00
South Korea	1.00
Lithuania	0.92
Costa Rica	0.73
Czechia	0.59
Germany	0.52
Estonia	0.42
Slovenia	0.40
Turkey	0.38
United States	0.28
Italy	0.28
Austria	0.27
Greece	0.27
Canada	0.27
Sweden	0.20
Belgium	0.18
Luxembourg	0.17
United Kingdom	0.15
<b>Australia</b>	<b>0.14</b>
Portugal	0.14
Finland	0.13
France	0.13
Spain	0.12
Norway	0.11
Israel	0.11
Switzerland	0.10
Denmark	0.09
Iceland	0.07
Ireland	0.06
Netherlands	0.05
New Zealand	0.00

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## COVID-19 Epidemiology - Quick Facts – 19 January 2022

### AUSTRALIA – SUMMARY DATA

#### Summary of Australian cases and testing – to 1200hrs 19 January 2022

Source: State and territory reporting to the National Incident Centre

	National (total)	ACT	NSW	NT	Qld <sup>#</sup>	SA <sup>#</sup>	Tas	Vic	WA
<b>TOTAL 2020 - 2022</b>									
<b>TOTAL CASES</b>	1,506,602	22,852	691,353	5,348	209,139	77,183	11,504	487,895	1,328
<b>TOTAL DEATHS (CFR)</b>	2,841 (0.18)	20 (0.08)	951 (0.13)	2 (0.03)	63 (0.03)	47 (0.06)	13 (0.11)	1,736 (0.35)	9 (0.67)
<b>2022</b>									
<b>Cases</b>	1,165,165	19,528	537,162	4,871	200,607	69,558	10,959	322,300	180
<b>Deaths (CFR)</b>	631 (0.05%)	5 (0.02%)	295 (0.05%)	1 (0.02%)	56 (0.02%)	42 (0.06%)	0 (0%)	232 (0.07%)	0 (0%)
<b>2021 *Under investigation not denoted</b>									
<b>Cases</b>	313,015	3,206	149,263	403	7,281	7,046	311	145,220	285
<b>Deaths (CFR)</b>	1,302.00 (0.41%)	12.00 (0.37%)	602.00 (0.40%)	1.00 (0.24%)	1.00 (0.01%)	1.00 (0.01%)	0.00 (0%)	685.00 (0.47%)	0.00 (0%)
<b>2020 *Under investigation not denoted</b>									
<b>Cases</b>	28,422	118	4,928	74	1,251	579	234	20,375	863
<b>Deaths (CFR)</b>	908 (3.2%)	3 (2.5%)	54 (1.1%)	0 (0%)	6 (0.5%)	4 (0.7%)	13 (5.6%)	819 (4.0%)	9 (1.0%)

#### Current active cases – as at 1200hrs 19 January 2022

Source: State and territory reporting to the National Incident Centre

	NATIONAL			JURISDICTIONS							
	National (total)	16 Jan 2022	09 Jan 2022	ACT	NSW	NT	Qld	SA	Tas	Vic	WA
<b>Total Active cases</b>	550,014	712,036	495,141	6,655	302,453	3,974	86,561	32,366	1,739	116,183	83
<b>Hospitalised (of total Active)</b>	5,307 (0.96%)	4,643	5,097	60	2,863	53	835	294	29	1,173	0
<b>ICU (of those hospitalised)</b>	424 (0.07%)	389	299	5	217	0	52	23	2	125	0
<b>Ventilated (of those admitted to ICU)*</b>	141 (0.025%)	126	90	2	74	0	18	4	1	42	0

#### COVID-19 Cases by Vaccination status - Locally acquired cases aged 12 to 69 years New South Wales, Queensland, South Australia, and Australian Capital Territory, 1 January 2021 to 30 November 2021\*

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>Fully vaccinated</b>	6,171 (12.0%)	452 (6.3%)	32 (3.0%)	10 (4.4%)	6,665 (11.1%)
<b>Partially vaccinated</b>	6,195 (12.0%)	571 (8.0%)	56 (5.2%)	24 (10.6%)	6,846 (11.4%)
<b>No effective vaccination**</b>	32,354 (62.9%)	5,007 (69.8%)	773 (71.6%)	190 (83.7%)	38,324 (63.9%)
<b>Unknown</b>	6,757 (13.1%)	1,141 (15.9%)	219 (20.3%)	3 (1.3%)	8,120 (13.5%)
<b>Total</b>	51,477	7,171	1,080	227	59,955

\* Confirmed locally acquired cases from NSW, Qld, SA and ACT; excludes cases with an illness onset in the last two weeks to account for the delay between onset and the development of severe illness. \*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen.

**COVID-19 Cases by Vaccination status - Locally acquired cases aged 12 to 69 years New South Wales, Queensland, and South Australia, 1 December 2021 to 3 January 2022\***

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>Fully vaccinated</b>	161,670 (74.2%)	2,183 (64.3%)	68 (40.7%)	10 (43.5%)	163,931 (74.0%)
<b>Partially vaccinated</b>	4,842 (2.2%)	95 (2.8%)	9 (5.4%)	1 (4.4%)	4,947 (2.2%)
<b>No effective vaccination**</b>	8,381 (3.9%)	383 (11.3%)	41 (24.6%)	10 (43.5%)	8,815 (4.0%)
<b>Unknown</b>	42,985 (19.7%)	735 (21.6%)	49 (29.3%)	2 (8.7%)	43,771 (19.8%)
<b>Total</b>	<b>217,878</b>	<b>3,396</b>	<b>167</b>	<b>23</b>	<b>221,464</b>

\* Confirmed locally acquired cases from NSW, QLD and SA; excludes cases with an illness onset in the last two weeks to account for the delay between onset and the development of severe illness. \*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen.

**POPULATION GROUPS – SUMMARY DATA**

**Locally-acquired COVID-19 Cases by Vaccination status, 1 January 2021 to 3 January 2022 – Not available for NDIS participants or RACF residents**

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>REGIONAL/REMOTE @*- NSW, SA and QLD cases aged 12 years and older</b>					
<b>Fully vaccinated</b>	24,985 (68.3%)	547 (46.0%)	26 (19.1%)	19 (33.9%)	25,577 (67.4%)
<b>Partially vaccinated</b>	1,331 (3.3%)	82 (6.9%)	13 (9.6%)	13 (23.2%)	1,439 (3.8%)
<b>No effective vaccination**</b>	4,169 (11.4%)	385 (32.4%)	77 (56.6%)	22 (39.3%)	4,653 (12.3%)
<b>Unknown</b>	6,081 (16.6%)	174 (14.7%)	20 (14.7%)	2 (3.6%)	6,277 (16.5%)
<b>TOTAL</b>	<b>36,566</b>	<b>1,188</b>	<b>136</b>	<b>56</b>	<b>37,946</b>
<b>ABORIGINAL AND TORRES STRAIT ISLANDER POPULATION*^ – NSW, SA AND QLD aged 12 years and older</b>					
<b>Fully vaccinated</b>	4,699 (48.0%)	152 (19.51%)	10 (10.4%)	7 (30.4%)	4,868 (45.5%)
<b>Partially vaccinated</b>	601 (6.1%)	66 (8.5%)	9 (9.4%)	4 (17.4%)	680 (6.4%)
<b>No effective vaccination**</b>	3,717 (37.9%)	473 (60.6%)	62 (64.6%)	11 (47.8%)	4,263 (39.9%)
<b>Unknown</b>	782 (8.0%)	89 (11.4%)	15 (15.6%)	1 (4.4%)	887 (8.3%)
<b>TOTAL</b>	<b>9,799</b>	<b>780</b>	<b>96</b>	<b>23</b>	<b>10,698</b>

\* Confirmed locally acquired cases from NSW, SA and Qld; excludes cases with an illness onset in the last two weeks to account for the delay between onset and the development of severe illness; \*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen. @ Represents cases classified as locally acquired and with a place of residence classified as 'inner regional' 'outer regional', 'remote' and 'very remote'. ^ Excludes cases for whom Indigenous status was unknown, blank or non-indigenous.



**Summary of Cases – By population Group, severity and year**

Population Group	Cases (% among relevant population group)	Deaths (% among relevant population group)	Hospitalisations (not ICU or died) (% cases hospitalised in this group)	ICU (but not died) (% cases admitted to ICU in this group)	Crude Case Fatality Rate
<b>TOTAL 2020 - 2022#</b>					
Residential aged care facility residents (to 17 January 2022)^	8,358 (4.575%)	1,034 (0.566%)	Not available	Not available	12.4%
Aboriginal and Torres Strait Islander population~ (to 3 January 2022)*	17,547 (2.198%)	28 (0.004%)	1,195 (6.8%)	111 (0.6%)	0.2%
NDIS Participants (1 March 2020 to 19 January 2022)^	2,395 (0.500%)	39 (0.008%)	Not available	Not available	1.6%
Regional/Remote locally acquired@ (to 3 January 2022)*	72,325 (1.017%)	142 (0.002%)	2,165 (3.0%)	237 (0.3%)	0.2%
General population – all cases~ (to 3 January 2022)*	635,702 (2.475%)	2,466 (0.010%)	23,922 (3.7%)	2,874 (0.5%)	0.4%
<b>2020</b>					
Residential aged care facility residents# (to 31 Dec 20)	2,051 (1.123%)	685 (0.375%)	Not available	Not available	33.4%#
Aboriginal and Torres Strait Islander population~ (to 31 Dec 20)	159 (0.020%)	0 (N/A)	20 (12.6%)	2 (1.3%)	N/A
NDIS Participants^ (1 March 2020 to 28 June 2021)	183 (0.038)	9 (0.002%)	Not available	Not available	4.9%
Regional/remote locally acquired @ (to 31 Dec 2020)	1,140 (0.016%)	24 (<0.001%)	113 (9.9%)	20 (1.8%)	2.1%
General population – all cases~ (to 31 Dec 2020)	28,404 (0.111%)	908 (0.004%)	2,770 (9.8%)	432 (1.5%)	3.2%
<b>2021</b>					
Residential aged care facility residents# (to 17 January 2022)	6,307 (3.453%)	349 (0.191%)	Not available	Not available	5.5%
Aboriginal and Torres Strait Islander population~ (to 31 Dec 2021)*	12,401 (1.553%)	26 (0.003%)	1,078 (8.7%)	107 (0.9%)	0.2%
NDIS Participants^ (29 June to 19 January 2022)^	1,630 (0.340%)	18 (0.006%)	Not available	Not available	1.8%
Regional/remote locally acquired @ (to 31 Dec 2021)*	35,801 (0.503%)	107 (0.002%)	1,684 (4.7%)	200 (0.6%)	0.3%
General population – all cases~ (to 31 Dec 2021)*	366,103 (1.425%)	1,481 (0.006%)	18,933 (5.2%)	2,350 (0.6%)	0.4%
<b>2022</b>					
Aboriginal and Torres Strait Islander population~ (to 3 January 2022)*	4,987 (0.625%)	2 (<0.001%)	97 (1.9%)	2 (0.04%)	0.04%
Regional/remote locally acquired @	35,384 (0.498%)	11 (<0.001%)	368 (1.0%)	17 (0.05%)	0.03%

(to 3 January 2022)*					
<b>General population – all cases~</b> (to 3 January 2022)*	241,195 (0.939%)	77 (<0.001%)	2,219 (0.9%)	92 (0.04%)	0.03%

\* Based on cases and deaths with an onset date up to 22 November due to the gap between onset and illness severity. ^ Approximately 7% (69 out of 979) of cases are currently considered to be active cases and therefore their outcome of illness is not yet known. Data by calendar year are not available for NDIS participant cases. These dates represent the best estimates for 2020 compared to 2021 incidence comparison. # As the data presented in the tables represent cases and associated deaths across both 2020 and 2021, cautious interpretation is required given the differing epidemic contexts, including with regard to vaccination coverage over these periods. @ Represents cases classified as 'inner regional' 'outer regional', 'remote' and 'very remote'. ~ Represents all cases, regardless of source of acquisition (i.e., overseas acquired, locally acquired and under investigation)

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CHILDREN AND ADOLESCENTS – SUMMARY DATA

**Children Summary of Cases and deaths – By jurisdiction and year – to 17 January 2022**

Source: NINDSS extracted 18 January 2022

State	CASES				DEATHS			
	Children under 12		Children under 18		Children under 12		Children under 18	
	N	%	N	%	N	%	N	%
<b>TOTAL 2020 - 2022</b>								
ACT	2,426	10.51%	3,802	16.47%	0	0.00%	0	0.00%
NSW	65,392	12.33%	104,068	19.63%	1	0.11%	2	0.23%
Northern Territory	191	10.93%	269	15.40%	0	0.00%	0	0.00%
Queensland	10,499	5.55%	19,476	10.34%	0	0.00%	0	0.00%
South Australia	6,885	10.13%	11,450	16.85%	1	2.56%	1	2.56%
Tasmania	576	5.38%	1,034	9.65%	0	0.00%	0	0.00%
Victoria	55,023	11.59%	81,333	17.13%	1	0.06%	2	0.12%
Western Australia	54	4.3%	72	5.71%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>140,996</b>	<b>10.86%</b>	<b>221,504</b>	<b>17.06%</b>	<b>3</b>	<b>0.11%</b>	<b>5</b>	<b>0.19%</b>
<b>2020</b>								
ACT	0	0.00%	1	0.85%	0	0.00%	0	0.00%
NSW	203	4.12%	344	6.98%	0	0.00%	0	0.00%
Northern Territory	9	12.16%	10	13.51%	0	0.00%	0	0.00%
Queensland	26	2.09%	40	3.21%	0	0.00%	0	0.00%
South Australia	13	2.28%	25	4.39%	0	0.00%	0	0.00%
Tasmania	6	2.56%	12	5.13%	0	0.00%	0	0.00%
Victoria	1,540	7.56%	2,671	13.11%	0	0.00%	0	0.00%
Western Australia	31	3.58%	39	4.51%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>1,831</b>	<b>6.44%</b>	<b>3,142</b>	<b>11.06%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>
<b>2021</b>								
ACT	598	13.49%	917	20.69%	0	0.00%	0	0.00%
NSW	24,206	14.60%	37,690	22.73%	1	0.15%	2	0.30%
Northern Territory	100	18.05%	132	23.83%	0	0.00%	0	0.00%
Queensland	993	5.45%	1,748	9.59%	0	0.00%	0	0.00%
South Australia	1,126	8.95%	1,873	14.89%	1	7.69%	1	7.69%
Tasmania	60	6.24%	95	9.89%	0	0.00%	0	0.00%
Victoria	31,431	19.25%	42,869	26.26%	1	0.13%	2	0.26%
Western Australia	19	19.25%	27	9.12%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>58,533</b>	<b>6.42%</b>	<b>85,351</b>	<b>23.31%</b>	<b>3</b>	<b>0.20%</b>	<b>5</b>	<b>0.28%</b>
<b>2022</b>								
ACT	1,828	9.86%	2,884	15.56%	0	0.00%	0	0.00%
NSW	40,983	11.4%	66,034	18.37%	0	0.00%	0	0.00%
Northern Territory	82	7.33%	127	11.35%	0	0.00%	0	0.00%
Queensland	9,430	5.58%	17,688	10.47%	0	0.00%	0	0.00%
South Australia	5,646	10.48%	9,552	17.43%	0	0.00%	0	0.00%
Tasmania	510	5.36%	927	9.74%	0	0.00%	0	0.00%
Victoria	22,052	7.57%	35,793	12.29%	0	0.00%	0	0.00%
Western Australia	4	4.04%	6	6.06%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>80,635</b>	<b>8.92%</b>	<b>133,011</b>	<b>14.72%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

^ Due to the dynamic nature of the NINDSS, numbers may be subject to revision and may vary from numbers previously reported and from daily officially reported case numbers released by states and territories. Dates defined using case notification date. Deaths may have occurred in a different year to that of case notification.

**SENATE SELECT COMMITTEE**  
**January 2022**

**FAS BRIEF – KEY INFORMATION**

**OHPR Brief XX**

## **Omicron cases reported to the National Interoperable Notifiable Disease Surveillance System**

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### **KEY FACTS**

- As at 19 January 2022, there have been 6,759 confirmed Omicron variant cases officially reported in Australia since the first case was reported on 27 November 2021 (Table 1)
  - There are many additional probable Omicron cases for which sequencing information are not available, and therefore these numbers are an underestimate of the true number of Omicron cases currently in Australia.
- Information on 74% (5,002/6,759) of confirmed Omicron cases is available in National Interoperable Notifiable Disease Surveillance System (NINDSS)
  - Information is incomplete due to lags in the transmission of case notification and sequencing information.
- Of confirmed Omicron cases reported in NINDSS,
  - 97% (4,853/5,002) were acquired in Australia,
  - 42% (2,119/5,002) were aged between 18-29 years (Figure 1), and
  - 6% (341/5,002) were in Aboriginal and Torres Strait Islander people.
- Of Omicron cases aged 12 and over,
  - 69% (3,264/4,731) were fully vaccinated, of which 93 had received a booster,
  - 5% (244/4,731) were partially vaccinated,
  - 7% (323/4,731) had no effective vaccination, and
  - 19% (900/4,731) had an unknown vaccination status (Table 2).
    - Note, the proportion of cases that are vaccinated should not be used to interpret vaccine effectiveness. An increased proportion of vaccinated cases is partially a reflection of high vaccination rates among the general population.
- Of all Omicron cases reported in NINDSS, 35 cases have died, an additional 151 have been admitted to ICU and 514 have been admitted to hospital (and not admitted to ICU or died).
  - Excluding cases with an onset date in the last two weeks (to allow time for severe illness to develop), 0.5% of confirmed Omicron cases have died, an

additional 2.2% have been admitted to ICU and 9% have been admitted to hospital (Table 3).

- The proportion of cases that are fully vaccinated is similar across all levels of severity (Table 4).
  - Note, this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete, cases may be hospitalised for reasons other than COVID-19 and the definitions of hospitalised used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed Omicron case numbers, as severe cases are more likely to be sequenced.
- Given the resources required to sequence cases, not all cases are sequenced. Since November 2021, 1.1% of confirmed cases reported to NINDSS have had sequencing information. Each jurisdiction has different guidelines for prioritising case sequencing. In general, these guidelines recommend prioritising overseas acquired cases, severe cases and cases without a known epidemiological link for sequencing. As such, analyses limited to sequenced cases may not be representative of all cases.

## ATTACHMENTS

- Table 1: Total confirmed Omicron cases officially reported by source of acquisition, as at 19 January 2022
- Figure 1: Locally acquired confirmed Omicron cases by age group, Australia
- Table 2. Vaccination status of confirmed Omicron COVID-19 cases in aged 12 years and over reported in NINDSS, Australia
- Table 3: Confirmed Omicron cases by age and highest level of illness severity, Australia, cases with an onset to 4 January 2022 (two weeks delay)
- Table 4: Confirmed Omicron cases aged 12 years and over by vaccination status and highest level of illness severity, Australia, cases with an onset to 4 January 2022 (two weeks delay)

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Cleared by: First Assistant Secretary	Mary Wood Office of Health Protection and Response	Work Phone: 02 6289 8407 Mobile: s22

## ATTACHMENTS

**Table 1: Total confirmed Omicron cases officially reported by source of acquisition, as at 19 January 2022**

Data source: Jurisdictional reporting

	National (total)	ACT <sup>a</sup>	NSW	NT	Qld	SA	Tas	Vic*	WA
Locally acquired and Interstate Acquired	2,304 <sup>b</sup>	N/A	1,087	14	516	262	15	330	79
Overseas acquired	199 <sup>b</sup>	N/A	33	10	21	4	0	91	40
Under Investigation	4,172 <sup>b</sup>	N/A	942	2	1,892	183	0	1153	0
<b>Total Cases</b>	<b>6,759</b>	<b>84</b>	<b>2,062</b>	<b>26</b>	<b>2,429</b>	<b>450</b>	<b>15</b>	<b>1574</b>	<b>119</b>

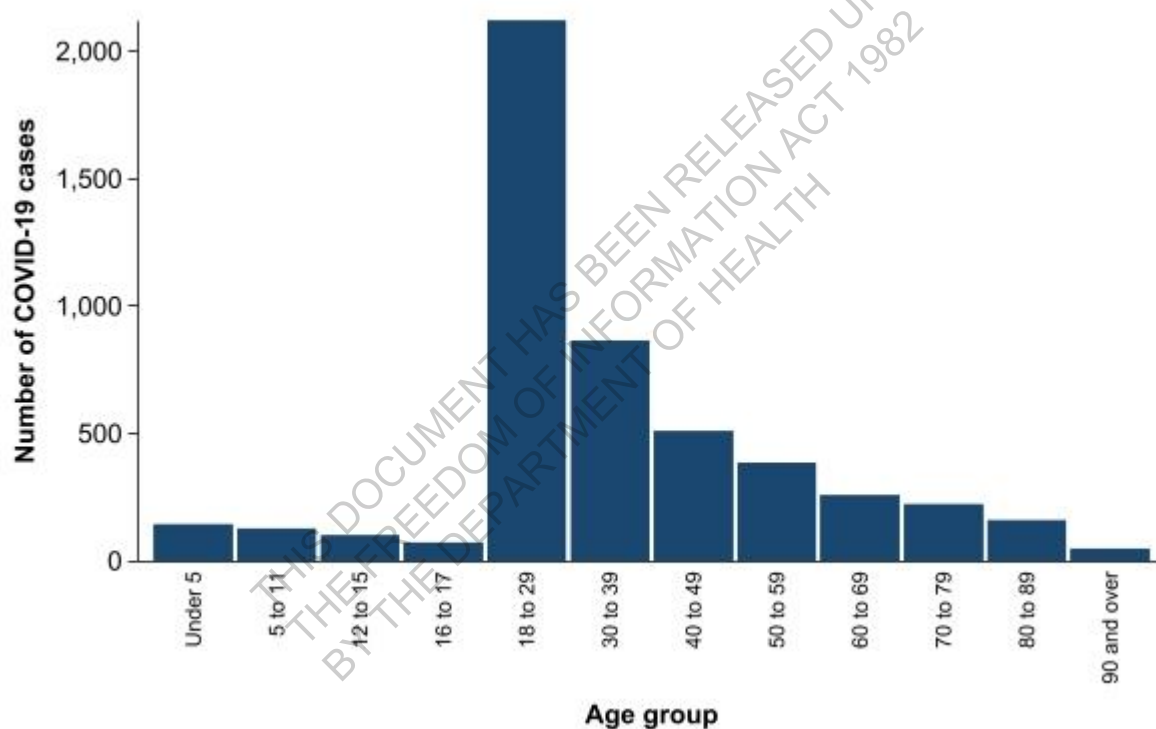
<sup>a</sup>Last updated 25 December 2021; due to the increase in cases in the ACT, extensive case investigation is still underway and the source of infection may be revised at a later date.

<sup>b</sup> Excludes cases from the ACT.

\* Please note, Vic numbers for 19 January 2022 were not available at the time of reporting.

**Figure 1: Locally acquired confirmed Omicron cases by age group, Australia**

Data source: NINDSS, extracted 19 January 2022



**Table 2. Vaccination status of confirmed Omicron COVID-19 cases in aged 12 years and over reported in NINDSS, Australia**

Data source: NINDSS, extracted 19 January 2022

Vaccination status	Age group (%)										Total	
	12-17		18-29		30-59		60-79		80+			
Fully vaccinated	64	37.6%	1,465	69.1%	1,226	69.8%	361	75.5%	148	71.2%	3,264	69.0%
Partially vaccinated	11	6.5%	141	6.7%	62	3.5%	18	3.8%	12	5.8%	244	5.2%
No effective vaccination*	32	18.8%	163	7.7%	96	5.5%	21	4.4%	11	5.3%	323	6.8%
Unknown	63	37.1%	350	16.5%	372	21.2%	78	16.3%	37	17.8%	900	19.0%
<b>Total</b>	170		2,119		1,756		478		208		4,731	

\*Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen

**Table 3: Confirmed Omicron cases by age and highest level of illness severity, Australia, cases with an onset to 4 January 2022 (two weeks delay) ^\***

Data source: NINDSS, extracted 19 January 2022

Age group	Count					% of total cases by age group		
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died
0-4	104	20	1	1	126	15.9%	0.8%	0.8%
5-11	108	4	1	0	113	3.5%	0.9%	0.0%
12-15	89	3	0	0	92	3.3%	0.0%	0.0%
16-17	68	1	0	0	69	1.4%	0.0%	0.0%
18-29	1,947	115	3	1	2,066	5.6%	0.1%	<0.05%
30-39	753	51	8	1	813	6.3%	1.0%	0.1%
40-49	427	33	10	0	470	7.0%	2.1%	0.0%
50-59	291	42	15	1	349	12.0%	4.3%	0.3%
60-69	149	36	20	3	208	17.3%	9.6%	1.4%
70-79	93	41	28	7	169	24.3%	16.6%	4.1%
80-89	43	55	15	5	118	46.6%	12.7%	4.2%
90+	17	18	2	4	41	43.9%	4.9%	9.8%
Unknown	0	0	0	0	0	NA	NA	NA
<b>Total</b>	<b>4,089</b>	<b>419</b>	<b>103</b>	<b>23</b>	<b>4,634</b>	<b>9.0%</b>	<b>2.2%</b>	<b>0.5%</b>

^Given the delay between illness onset and severe illness, to provide a more accurate assessment of the highest level of severity, cases with an onset in the last two weeks were excluded from the analysis.

\*Note this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete and the definitions used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed omicron case numbers, as severe cases are more likely to be sequenced.

**Table 4: Confirmed Omicron cases aged 12 years and over by vaccination status and highest level of illness severity, Australia, cases with an onset to 4 January 2022 (two weeks delay) ^\***

Data source: NINDSS, extracted 19 January 2022

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>Fully vaccinated</b>	2,674 (69.0%)	284 (71.9%)	73 (72.3%)	16 (72.7%)	3,047 (69.3%)
<b>Partially vaccinated</b>	202 (5.2%)	25 (6.3%)	3 (3.0%)	2 (9.1%)	232 (5.3%)
<b>No effective vaccination**</b>	288 (7.4%)	21 (5.3%)	7 (7.0%)	1 (4.5%)	317 (7.2%)
<b>Unknown</b>	713 (18.4%)	65 (16.5%)	18 (17.8%)	3 (13.6%)	799 (18.2%)
<b>Total</b>	<b>3,877</b>	<b>395</b>	<b>101</b>	<b>22</b>	<b>4,395</b>

\*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen

SENATE SELECT COMMITTEE  
January 2022

FAS BRIEF – KEY INFORMATION

OHPR Brief XX

**Analysis of Omicron cases:  
Including enhanced data on ICU hospitalisation**

s22 : Suggest we combine with other  
Omicron case brief

**KEY FACTS**

**National Interoperable Notifiable Disease Surveillance System (NINDSS)**

- As at 19 January 2022, there have been 6,759 confirmed Omicron variant cases officially reported in Australia since the first case was reported on 27 November 2021
  - Information on 74% (5,002/6,759) of confirmed Omicron cases is available in [National Interoperable Notifiable Disease Surveillance System \(NINDSS\)](#)
- Of all Omicron cases reported in NINDSS, 35 cases have died, an additional 151 have been admitted to ICU and 514 have been admitted to hospital (and not admitted to ICU or died).
  - Excluding cases with an onset date in the last two weeks (to allow time for severe illness to develop), 0.5% of confirmed Omicron cases have died, an additional 2.2% have been admitted to ICU and 9% have been admitted to hospital (Table 1).
- Of cases aged 12 and over, 69% were fully vaccinated, of which 93 had received a booster. (Table 2).
  - The proportion of cases that are fully vaccinated is similar across all levels of severity.
  - An increased proportion of vaccinated cases is partially a reflection of high vaccination rates among the general population.
- Given the resources required to sequence cases, not all cases are sequenced. Since November 2021, [only](#) 1.1% of confirmed cases reported to NINDSS have had sequencing information.
  - Each jurisdiction has different guidelines for prioritising case sequencing.
  - In general, these guidelines recommend prioritising overseas acquired cases, severe cases and cases without a known epidemiological link for sequencing. As such, analyses limited to sequenced cases may not be representative of all cases.

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**SPRINT-SARI**

- Preliminary analysis from SPRINT-SARI data suggests that the profile of people being admitted to ICU with COVID-19 attributed to Omicron differs slightly from those admitted as a result of Delta infection.



- Consistent with previous analyses, it is clear that unvaccinated individuals are at a greater risk of poor health outcomes requiring management and admission to ICU.- This is the case regardless of age or which strain of COVID-19 people are infected with.
  - During the Omicron wave, of those aged under 50 years, 67% of ICU admissions could have been prevented by being fully vaccinated, compared to 49% of those aged 50 years and over.
  - For the Delta wave, 98% of ICU admissions could have been avoided if fully vaccinated, compared to 93% for those aged 50 years and over.
- *Public health implications and messaging:*
  - Continued vaccination uptake, including boosters, is important, especially among those under 50 years of age.
  - In addition to maintaining high levels of vaccination among those aged over 50 years, earlier treatment options should be considered, especially among those with comorbidities who are at increased risk of ICU admission and poor health outcomes.

#### Omicron severity and transmissibility compared with Delta international evidence

- Evidence suggests there is a 50-70% reduction in hospital admissions for Omicron compared with Delta (UKHSA Technical briefing #33).
  - In addition, there is an estimated 81% reduction in hospitalisation risk after three doses of vaccine, compared to unvaccinated Omicron cases.
- Preliminary evidence indicates that Omicron is substantially more transmissible than Delta in populations with a high previous exposure to COVID-19 and/or high vaccination coverage suggesting escape from vaccine and/or infection derived immunity.
  - In the UK, transmission rates are higher for Omicron than Delta, particularly for contacts outside the household; 37.3% of named Omicron close contacts were outside of the household compared to Delta (20.8%) (UKHSA Technical Briefing #31).
- In addition, 19% of Omicron index cases gave rise to a secondary household case, in comparison to 8.3% of Delta index cases (UKHSA Technical Briefing #31).

s22 Suggest adding to s22's brief or the FAS brief on Omicron severity

## BACKGROUND

### SPRINT-SARI Supporting data

#### Vaccination Status

Of cases admitted to ICU from 1 July to 14 December 2021 (representing the Delta wave), 76% of those aged less than 50 were unvaccinated. This trend has continued during the current wave, with the majority (53%) of cases aged less than 50 having not received an effective vaccine dose (Table 1).

- Given the staged vaccination rollout in 2021, with older age groups being eligible for vaccination first, it is expected that a larger proportion of cases during the Delta wave, particularly in those aged under 50, are unvaccinated. Therefore, comparisons of vaccine effectiveness between the two waves should be undertaken with caution.

For instance, while there is a larger proportion of cases in ICU who are fully vaccinated in the Omicron wave compared to the Delta wave (46% vs. 5%), reflecting high-levels of vaccination rates among the general population.

#### Comorbidities

During the Delta wave, of cases aged 50 years and over, 69% had at least one of the specified comorbidities; and in the current wave, 76% of cases had at least one comorbidity. For those aged less than 50 years, the majority of cases in ICU during both the Delta and Omicron waves had at least one comorbidity, with 54% and 57% of cases, respectively.

- Listed comorbidities include cardiac disease, chronic respiratory condition, diabetes, obesity, chronic renal disease, chronic neurological condition, malignancy, chronic liver disease and immunosuppression.

#### Deaths

Hospitalisation outcome was available for 94% (2,070/2,295) of cases admitted to ICU between 1 July and 14 December 2021, and of these 17% (345/2,070) of cases were reported to have died. Where comorbidity information was available, 81% of those who died had at least one of the specified comorbidities.

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BY THE DEPARTMENT OF HEALTH

*Data source and caveats*

- NINDSS data extracted 19 January 2022.
  - Note, this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete, cases may be hospitalised for reasons other than COVID-19 and the definitions of hospitalised used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed Omicron case numbers, as severe cases are more likely to be sequenced.
- SPRINT-SARI data extracted on 18 January 2022 and represents cases with an ICU admission date of 1 July 2021 to 16 January 2022.
  - SPRINT-SARI is a sentinel system that collects detailed data on the characteristics and outcomes of interventions for patients admitted to ICUs or High Dependency Units with COVID-19 at participating sites across Australia.
  - In the absence of comprehensive genetic sequencing data capture, timeframe has been used as a proxy for the 'Delta wave' and 'Omicron wave' respectively. For the purposes of this analysis, ICU admission dates from 1 July to 14 December 2021 are considered to be predominantly driven by Delta. Those with admission dates after 14 December 2021 are considered most likely to be driven by the Omicron strain.

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**ATTACHMENTS**

**Attachment 4A – NINDSS**

- Figure 1: Locally acquired confirmed Omicron cases by age group, Australia
- Table 1: Confirmed Omicron cases by age and highest level of illness severity, Australia, cases with an onset to 4 January 2022 (two weeks delay)
- Table 2: Confirmed Omicron cases aged 12 years and over by vaccination status and highest level of illness severity, Australia, cases with an onset to 4 January 2022 (two weeks delay)

**Attachment B – 2-SPRINT-SARI**

- Table 3. COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by vaccination status and age group, 1 July 2021 – 16 January 2022
- Table 4. Number of comorbidities in COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by age group, 1 July 2021 – 16 January 2022
- Table 5. Number of comorbidities in COVID-19 cases who died at participating SPRINT SARI sentinel sites, 1 July 2021 – 14 December 2021

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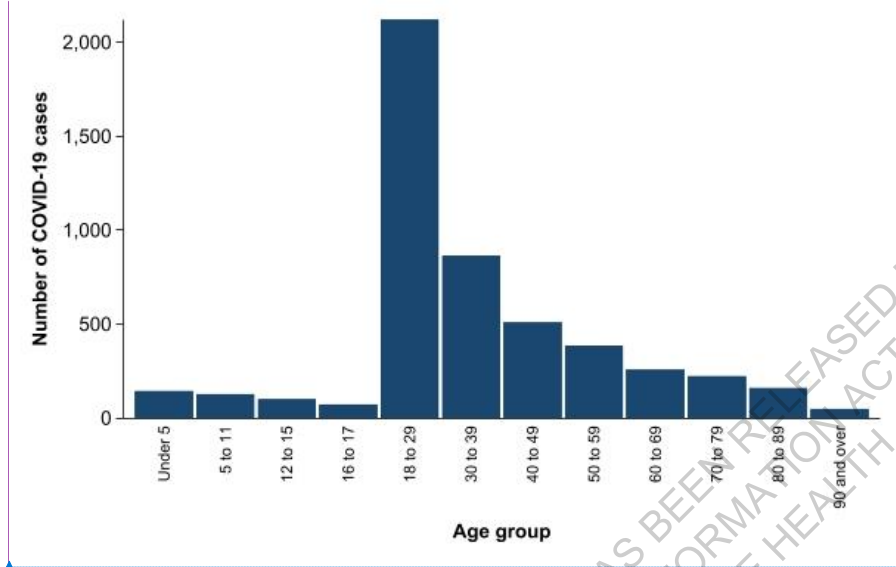
Contact Officer:	Jennie Hood	Work Phone: 02 6289 1398
Assistant Secretary	Public Health and Surveillance	Mobile: s22
Cleared by:	Mary Wood	Work Phone: 02 6289 8407
First Assistant Secretary	Office of Health Protection and Response	Mobile: s22

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NINDSS

Figure 1: Locally acquired confirmed Omicron cases by age group, Australia

Data source: NINDSS, extracted 19 January 2022



ATTACHMENT A1

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**Table 1: Confirmed Omicron cases by age and highest level of illness severity, Australia, cases with an onset to 4 January 2022 (two weeks delay) ^\***

Data source: NINDSS, extracted 19 January 2022

Age group	Count					% of total cases by age group		
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died
0-4	104	20	1	1	126	15.9%	0.8%	0.8%
5-11	108	4	1	0	113	3.5%	0.9%	0.0%
12-15	89	3	0	0	92	3.3%	0.0%	0.0%
16-17	68	1	0	0	69	1.4%	0.0%	0.0%
18-29	1,947	115	3	1	2,066	5.6%	0.1%	<0.05%
30-39	753	51	8	1	813	6.3%	1.0%	0.1%
40-49	427	33	10	0	470	7.0%	2.1%	0.0%
50-59	291	42	15	1	349	12.0%	4.3%	0.3%
60-69	149	36	20	3	208	17.3%	9.6%	1.4%
70-79	93	41	28	7	169	24.3%	16.6%	4.1%
80-89	43	55	15	5	118	46.6%	12.7%	4.2%
90+	17	18	2	4	41	43.9%	4.9%	9.8%
Unknown	0	0	0	0	0	NA	NA	NA
<b>Total</b>	<b>4,089</b>	<b>419</b>	<b>103</b>	<b>23</b>	<b>4,634</b>	<b>9.0%</b>	<b>2.2%</b>	<b>0.5%</b>

^Given the delay between illness onset and severe illness, to provide a more accurate assessment of the highest level of severity, cases with an onset in the last two weeks were excluded from the analysis.

\*Note this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete and the definitions used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed omicron case numbers, as severe cases are more likely to be sequenced.

**Table 2: Confirmed Omicron cases aged 12 years and over by vaccination status and highest level of illness severity, Australia, cases with an onset to 4 January 2022 (two weeks delay) ^\***

Data source: NINDSS, extracted 19 January 2022

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
Fully vaccinated	2,674 (69.0%)	284 (71.9%)	73 (72.3%)	16 (72.7%)	3,047 (69.3%)
Partially vaccinated	202 (5.2%)	25 (6.3%)	3 (3.0%)	2 (9.1%)	232 (5.3%)
No effective vaccination**	288 (7.4%)	21 (5.3%)	7 (7.0%)	1 (4.5%)	317 (7.2%)
Unknown	713 (18.4%)	65 (16.5%)	18 (17.8%)	3 (13.6%)	799 (18.2%)
<b>Total</b>	<b>3,877</b>	<b>395</b>	<b>101</b>	<b>22</b>	<b>4,395</b>

\*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen

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SPRINT-SARI

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Table 3. COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by vaccination status and age group, 1 July 2021 – 16 January 2022

Vaccination Status	1 Jul to 14 Dec 2021			15 Dec 2021 to 16 Jan 2022		
	<50 year	≥50 years	Total	<50 year	≥50 years	Total
Fully vaccinated	20	95	115	40	162	202
	2%	7%	5%	33%	51%	46%
Partially vaccinated	60	199	259	5	10	15
	7%	14%	11%	4%	3%	3%
No effective vaccine	676	892	1,568	64	130	194
	76%	64%	68%	53%	41%	44%
Unknown	139	214	353	11	18	29
	16%	15%	15%	9%	6%	7%
Total	895	1,400	2,295	120	320	440

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Table 4. Number of comorbidities in COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by age group, 1 July 2021 – 16 January 2022<sup>^</sup>

Number of comorbidities	<50 years		≥50 years	
	1 Jul to 14 Dec 2021	15 Dec 2021 to 16 Jan 2022	1 Jul to 14 Dec 2021	15 Dec 2021 to 16 Jan 2022
None	346	47	356	73
	46%	43%	31%	24%
One or more	409	62	807	232
	54%	57%	69%	76%
Two or more	145	30	403	133
	19%	28%	35%	44%
Three or more	37	10	159	57
	5%	9%	14%	19%

<sup>^</sup>Excludes cases for which comorbidity information was unavailable, including 140 cases in the Delta wave and 11 cases in the Omicron wave for those aged under 50 years; and 237 cases in the Delta wave and 15 cases in the Omicron wave for those aged 50 years and over.

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Table 5. Number of comorbidities in COVID-19 cases who died at participating SPRINT SARI sentinel sites, 1 July 2021 – 14 December 2021<sup>^</sup>

Number of comorbidities	Deaths
None	56
	19%
One or more	239
	81%
Two or more	152
	52%
Three or more	71
	24%

<sup>^</sup>Excludes 50 deaths for which comorbidity information was unavailable.

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## COVID-19 Epidemiology - Quick Facts – 31 January 2022

### AUSTRALIA – SUMMARY DATA

#### Summary of Australian cases and testing – to 1200hrs 31 January 2022

Source: State and territory reporting to the National Incident Centre

	National (total)	ACT	NSW	NT	Qld	SA	Tas	Vic	WA
<b>TOTAL 2020 - 2022</b>									
<b>TOTAL CASES</b>	2,213,084	27,813	905,794	16,877	306,816	106,862	14,155	833,216	1,551
<b>TOTAL DEATHS (CFR)</b>	3,853 (0.2%)	26 (0.1%)	1,442 (0.2%)	2 (0.0%)	209 (0.1%)	120 (0.1%)	18 (0.1%)	2,029 (0.2%)	9 (0.6%)
<b>2022</b>									
<b>Cases</b>	1,817,699	23,813	718,320	16,303	292,957	95,792	13,364	656,757	393
<b>Deaths (CFR)</b>	1,596 (0.1%)	11 (0.0%)	759 (0.1%)	1 (0.0%)	202 (0.1%)	114 (0.1%)	5 (0.0%)	504 (0.1%)	0 (0.0%)
<b>2021</b>									
<b>Cases</b>	366,963	3,882	182,546	500	12,608	10,491	557	156,084	295
<b>Deaths (CFR)</b>	1,331 (0.4%)	12 (0.3%)	609 (0.3%)	1 (0.2%)	1 (0.0%)	2 (0.0%)	0 (0.0%)	706 (0.5%)	0 (0.0%)
<b>2020</b>									
<b>Cases</b>	28,422	118	4,928	74	1,251	579	234	20,375	863
<b>Deaths (CFR)</b>	908 (3.2%)	3 (2.5%)	54 (1.1%)	0 (0.0%)	6 (0.5%)	4 (0.7%)	13 (5.6%)	819 (4.0%)	9 (1.0%)

#### Current active cases – as at 31 December 2021

Source: State and territory reporting to the National Incident Centre

	NATIONAL			JURISDICTIONS							
	National (total)	24 January	17 January	ACT	NSW	NT	Qld	SA	Tas	Vic	WA
<b>Total Active cases</b>	<b>366,895</b>	411,875	708,180	3,750	200,901	6,165	63,119	18,928	1,156	72,710	166
<b>Hospitalised (of total Active)</b>	<b>4,954 (1.4%)</b>	5,173	4,906	64	2,749	132	868	273	16	851	1
<b>ICU (of those hospitalised)</b>	<b>375 (7.6%)</b>	404	407	1	186	4	54	22	1	106	1
<b>Ventilated (of those admitted to ICU)*</b>	<b>137 (36.5%)</b>	146	129	1	77	0	23	5	1	30	0

**COVID-19 Cases by Vaccination status - Locally acquired cases aged 12 years and over, selected jurisdictions\*, 1 January 2021 to 30 November 2021**

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>DELTA WAVE (16 June 2021 – 14 December 2021): NSW, ACT, QLD, and SA only</b>					
Fully vaccinated	6,171 (12.0%)	452 (6.3%)	32 (3.0%)	10 (4.4%)	6,665 (11.1%)
Partially vaccinated	6,195 (12.0%)	571 (8.0%)	56 (5.2%)	24 (10.6%)	6,846 (11.4%)
No effective vaccination***	32,354 (62.9%)	5,007 (69.8%)	773 (71.6%)	190 (83.7%)	38,324 (63.9%)
Unknown	6,757 (13.1%)	1,141 (15.9%)	219 (20.3%)	3 (1.3%)	8,120 (13.5%)
<b>Total</b>	<b>51,477</b>	<b>7,171</b>	<b>1,080</b>	<b>227</b>	<b>59,955</b>
<b>CURRENT WAVE (15 December 2021 – 16 January 2022): NSW, QLD, SA and WA only</b>					
Fully vaccinated	161,670 (74.2%)	2,183 (64.3%)	68 (40.7%)	10 (43.5%)	163,931 (74.0%)
Partially vaccinated	4,842 (2.2%)	95 (2.8%)	9 (5.4%)	1 (4.4%)	4,947 (2.2%)
No effective vaccination**	8,381 (3.9%)	383 (11.3%)	41 (24.6%)	10 (43.5%)	8,815 (4.0%)
Unknown	42,985 (19.7%)	735 (21.6%)	49 (29.3%)	2 (8.7%)	43,771 (19.8%)
<b>Total</b>	<b>217,878</b>	<b>3,396</b>	<b>167</b>	<b>23</b>	<b>221,464</b>

\*Selected jurisdictions are included based on the availability of vaccination data and the presence of cases during the outbreak periods. Excluded jurisdictions have either: high proportions of cases with no information on vaccination status or no or few locally acquired cases during the relevant outbreak period.

\*\* \*\*Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen. excludes cases with an illness onset in the last two weeks to account for the delay between onset and the development of severe illness.

**SEVERITY OF COVID-19 – SUMMARY DATA**

**Severity of COVID cases by year**

Source: State and territory reporting to the National Incident Centre

	2022	2021	2020
<b>Total Cases</b>	X	X	X
<b>Hospitalised (of total)</b>	X (%)	X (%)	X (%)
<b>ICU (of those hospitalised)</b>	X (%)	X (%)	X (%)
<b>Ventilated (of those admitted to ICU)*</b>	X (%)	X (%)	X (%)



**Confirmed Omicron cases by age and highest level of illness severity, Australia, cases with an onset to 16 January 2022 (two weeks delay) <sup>A\*</sup>**

Data source: NINDSS, extracted 1 February 2022

Age group	Count				% of total cases by age group			
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died
0-4	104	20	1	1	126	15.9%	0.8%	0.8%
5-11	108	4	1	0	113	3.5%	0.9%	0.0%
12-15	89	3	0	0	92	3.3%	0.0%	0.0%
16-17	68	1	0	0	69	1.4%	0.0%	0.0%
18-29	1,947	115	3	1	2,066	5.6%	0.1%	<0.05%
30-39	753	51	8	1	813	6.3%	1.0%	0.1%
40-49	427	33	10	0	470	7.0%	2.1%	0.0%
50-59	291	42	15	1	349	12.0%	4.3%	0.3%
60-69	149	36	20	3	208	17.3%	9.6%	1.4%
70-79	93	41	28	7	169	24.3%	16.6%	4.1%
80-89	43	55	15	5	118	46.6%	12.7%	4.2%
90+	17	18	2	4	41	43.9%	4.9%	9.8%
Unknown	0	0	0	0	0	NA	NA	NA
<b>Total</b>	<b>4,089</b>	<b>419</b>	<b>103</b>	<b>23</b>	<b>4,634</b>	<b>9.0%</b>	<b>2.2%</b>	<b>0.5%</b>

<sup>A</sup>Given the delay between illness onset and severe illness, to provide a more accurate assessment of the highest level of severity, cases with an onset in the last two weeks were excluded from the analysis.

\*Note this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete and the definitions used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed omicron case numbers, as severe cases are more likely to be sequenced.

**POPULATION GROUPS – SUMMARY DATA**

**Current Outbreaks**

**Active COVID-19 Outbreaks in residential aged care facilities<sup>\*A</sup>**

Source: Aged care recipient cases and deaths as at 1 February 2022

Confirmed COVID-19 cases	Australia	ACT	NSW	NT	Qld	SA	Tas	Vic	WA
<b>Aged care snapshot</b>									
<b>Residential Care - Care recipients (deaths)</b>	14,857 (1,438)	95 (8)	5,642 (373)	22 (0)	2,305 (108)	1,119 (76)	140 (3)	5,538 (870)	0 (0)
<b>In Home Care - Care recipients (deaths)</b>	205 (13)	0 (0)	45 (3)	0 (0)	15 (0)	1 (0)	5 (2)	138 (7)	1 (1)
<b>Residential Care - Staff (deaths)</b>	17,607 (0)	174 (0)	6,937 (0)	25 (0)	3,474 (0)	1,648 (0)	202 (0)	5,159 (0)	2 (0)
<b>In Home Care- Staff (deaths)</b>	66 (0)	1 (0)	13 (0)	0 (0)	5 (0)	0 (0)	1 (0)	45 (0)	1 (0)

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Source: Ageing and Aged Care Group, data as at 19 January 2022

	NSW	VIC	SA	QLD	TAS	NT	ACT	Total
<b>Total facilities with outbreaks</b>	498	303	138	203	15	3	18	1,178
<b>Total facilities with positive staff only</b>	113	45	45	49	4	1	4	261
<b>Total facilities with positive residents</b>	385	258	93	154	11	2	14	917
<b>Deaths in facilities with active outbreaks<sup>#</sup></b>	111	33	31	40	0	0	1	216 <sup>o</sup>
<b>Total number of positive residents in active outbreaks</b>	3,628	1,702	847	1,183	21	13	52	7,446
<b>Total number of positive staff in active outbreaks</b>	5,017	1,813	1,267	2,003	53	14	122	10,289

\* Active outbreaks are defined as having at least one positive resident or at least 2 positive staff.

<sup>^</sup> On 20 January 2020 the Department completed a data cleanse, resulting in changes to the reported numbers of cases, outbreaks and deaths.

<sup>#</sup> In New South Wales, COVID-19 death is defined as a death in a confirmed case unless there is a clear alternative cause of death that cannot be related to COVID-19, with no period of complete recovery from COVID-19 between illness and death. The Victorian Department of Health and Human Services defines a COVID death as any death that occurs within 28 days of a positive COVID test result.

<sup>o</sup> Of the 216 deaths reported related to current active outbreaks, 63 occurred in 2021 and 153 occurred in 2022.

**Confirmed COVID-19 deaths in residential aged care facilities in 2021, by vaccination status, 1 January to 6 December 2021**

	Palliative	Non-Palliative	Total
Fully vaccinated	86	56*	142 (72%)
Unvaccinated	23	14	37 (19%)
Partially vaccinated	7	11	18 (9%)
<b>Total</b>	<b>116 (59%)</b>	<b>81 (41%)</b>	<b>197 (100%)</b>

\* All residents experienced other underlying health conditions. NSW and Victoria confirmed these were COVID deaths, though the underlying conditions were considered significant. Further detail in site-specific updates.

**Current active cases – By population Group <LIMITED DATA AVAILABLE>**

Source: NDIS Commission and Aged Care from 25 November 2021

	Active cases	Hospitalised	ICU	Ventilated
Aboriginal and Torres Strait Islander population				
NDIS Participants	186			
Regional/remote				

**Locally-acquired COVID-19 Cases by Vaccination status, 1 January 2021 to 3 January 2022 – Not available for NDIS participants or RACF residents**

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>REGIONAL/REMOTE <sup>@**</sup>- NSW, SA and QLD cases aged 12 years and older</b>					
Fully vaccinated	24,985 (68.3%)	547 (46.0%)	26 (19.1%)	19 (33.9%)	25,577 (67.4%)
Partially vaccinated	1,331 (3.3%)	82 (6.9%)	13 (9.6%)	13 (23.2%)	1,439 (3.8%)
No effective vaccination <sup>**</sup>	4,169 (11.4%)	385 (32.4%)	77 (56.6%)	22 (39.3%)	4,653 (12.3%)
Unknown	6,081 (16.6%)	174 (14.7%)	20 (14.7%)	2 (3.6%)	6,277 (16.5%)
<b>TOTAL</b>	<b>36,566</b>	<b>1,188</b>	<b>136</b>	<b>56</b>	<b>37,946</b>
<b>ABORIGINAL AND TORRES STRAIT ISLANDER POPULATION<sup>*^</sup> – NSW, SA AND QLD aged 12 years and older</b>					

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s22 We cannot provide information on active cases disaggregated by population group, as this information is not provided by jurisdictions.  
  
We provide summary information on severity by population group in the table "Summary of cases – by population group, severity and year". This includes a breakdown of cases in 2022 in Aboriginal and Torres Strait Islander people and in residents of regional/remote areas in 2022 (i.e. "recent cases") by severity

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<b>Fully vaccinated</b>	4,699 (48.0%)	152 (19.51%)	10 (10.4%)	7 (30.4%)	4,868 (45.5%)
<b>Partially vaccinated</b>	601 (6.1%)	66 (8.5%)	9 (9.4%)	4 (17.4%)	680 (6.4%)
<b>No effective vaccination**</b>	3,717 (37.9%)	473 (60.6%)	62 (64.6%)	11 (47.8%)	4,263 (39.9%)
<b>Unknown</b>	782 (8.0%)	89 (11.4%)	15 (15.6%)	1 (4.4%)	887 (8.3%)
<b>TOTAL</b>	9,799	780	96	23	10,698

\* Confirmed locally acquired cases from NSW, QLD and SA only due to vaccination status data quality;

\*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen.

excludes cases with an illness onset in the last two weeks to account for the delay between onset and the development of severe illness.

@ Represents cases classified as locally acquired and with a place of residence classified as 'inner regional' 'outer regional', 'remote' and 'very remote'.

^ Excludes cases for whom Indigenous status was unknown, blank or non-indigenous.

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### Summary of Cases – By population Group and year

Source: NINDSS cases to 21 November 2021<sup>#</sup>, extracted 6 December 2021, NDIS data reported on 31 January 2022 and Aged Care data reported on 31 January 2022

Population Group	Not severe (% not severe in this group)	Hospitalisations (but not ICU or died) (%hospitalised in this group)	ICU (but not died) (% admitted to ICU in this group)	Deaths (% among relevant population group)	Total cases (% among relevant population group)	Crude Case Fatality Rate
<b>TOTAL 2020 - 2022<sup>#</sup></b>						
Residential aged care facility residents# (to 5 Dec 2021)	Not available	Not available	Not available	877 (0.480%)	3,451 (1.889%)	25.5%
Aboriginal and Torres Strait Islander population (to 21 Nov 2021)*	7,557 (0.947%)	793 (0.099%)	88 (0.011%)	18 (0.002%)	8,456 (1.059%)	0.2%
NDIS Participants (1 March 2020 to 3 Dec 2021) <sup>^</sup>	Not available	Not available	Not available	28 (0.006%)	979 (0.204%)	2.9%
Regional/Remote locally acquired <sup>@</sup> (to 21 Nov 2021)*	14,017 (0.197%)	890 (0.013%)	151 (0.002%)	92 (0.001%)	15,150 (0.213%)	0.6%
General population – all cases~ (to 21 Nov 2021)*	175,642 (0.684%)	16,109 (0.063%)	2,322 (0.009%)	2,025 (0.008%)	196,089 (0.763%)	1.0%
<b>2020</b>						
Residential aged care facility residents	Not available	Not available	Not available	685 (0.375%)	2,051 (1.123%)	33.40 <sup>#</sup>
Aboriginal and Torres Strait Islander population*	134 (0.017%)	19 (0.02%)	2 (0.7%)	0 (N/A)	155 (0.019%)	N/A
NDIS Participants (1 Mar 2020 to 28 June 2021)	Not available	Not available	Not available	9 (0.002%)	183 (0.038%)	4.9%
Regional/Remote locally acquired <sup>@</sup>	982 (0.014%)	106 (0.001%)	20 (<0.001%)	24 (<0.001%)	1,132 (0.016%)	2.1%
General population – all cases~	24,500 (0.095%)	2,666 (0.010%)	436 (0.002%)	908 (0.004%)	28,510 (0.111%)	3.2%
<b>2021</b>						
Residential aged care facility residents# (to 31 Dec 20)	Not available	Not available	Not available	192 (0.105%)	1,400 (0.766%)	13.7%
Aboriginal and Torres Strait Islander population~ (to 31 Dec 20)	7,423 (0.930%)	774 (0.096%)	86 (0.011%)	18 (0.002%)	8,301 (1.040%)	0.2%
NDIS Participants <sup>^</sup> (1 March 2020 to 28 June 2021)	Not available	Not available	Not available	19 (0.004%)	796 (0.166%)	Not available
Regional/remote locally acquired <sup>@</sup> (to 31 Dec 2020)	13,035 (0.183%)	784 (0.011%)	131 (0.002%)	68 (0.001%)	14,018 (0.197%)	0.5%
General population – all cases~ (to 31 Dec 2020)	151,142 (0.588%)	13,423 (0.052%)	1,886 (0.007%)	1,117 (0.004%)	167,588 (0.652%)	0.7%

2022						
Aboriginal and Torres Strait Islander population~ (to 3 January 2022)*						
Regional/remote locally acquired@ (to 3 January 2022)*						
General population – all cases~ (to 3 January 2022)*						

\* Based on cases and deaths with an onset date up to 22 November due to the gap between onset and illness severity. ^ Approximately 7% (69 out of 979) of cases are currently considered to be active cases and therefore their outcome of illness is not yet known. Data by calendar year are not available for NDIS participant cases. These dates represent the best estimates for 2020 compared to 2021 incidence comparison. # As the data presented in the tables represent cases and associated deaths across both 2020 and 2021, cautious interpretation is required given the differing epidemic contexts, including with regard to vaccination coverage over these periods. @ Represents cases classified as 'inner regional' 'outer regional', 'remote' and 'very remote'. ~ Represents all cases, regardless of source of acquisition (i.e., overseas acquired, locally acquired and under investigation)

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## Children Summary of Cases and deaths – By jurisdiction and year – to 17 January 2022

Source: NINDSS extracted 18 January 2022

State	CASES				DEATHS			
	Children under 12		Children under 18		Children under 12		Children under 18	
	N	%	N	%	N	%	N	%
<b>TOTAL 2020 - 2022</b>								
ACT	2,426	10.51%	3,802	16.47%	0	0.00%	0	0.00%
NSW	65,392	12.33%	104,068	19.63%	1	0.11%	2	0.23%
Northern Territory	191	10.93%	269	15.40%	0	0.00%	0	0.00%
Queensland	10,499	5.55%	19,476	10.34%	0	0.00%	0	0.00%
South Australia	6,885	10.13%	11,450	16.85%	1	2.56%	1	2.56%
Tasmania	576	5.38%	1,034	9.65%	0	0.00%	0	0.00%
Victoria	55,023	11.59%	81,333	17.13%	1	0.06%	2	0.12%
Western Australia	54	4.3%	72	5.71%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>140,996</b>	<b>10.86%</b>	<b>221,504</b>	<b>17.06%</b>	<b>3</b>	<b>0.11%</b>	<b>5</b>	<b>0.19%</b>
<b>2020</b>								
ACT	0	0.00%	1	0.85%	0	0.00%	0	0.00%
NSW	203	4.12%	344	6.98%	0	0.00%	0	0.00%
Northern Territory	9	12.16%	10	13.51%	0	0.00%	0	0.00%
Queensland	26	2.09%	40	3.21%	0	0.00%	0	0.00%
South Australia	13	2.28%	25	4.39%	0	0.00%	0	0.00%
Tasmania	6	2.56%	12	5.13%	0	0.00%	0	0.00%
Victoria	1,540	7.56%	2,671	13.11%	0	0.00%	0	0.00%
Western Australia	31	3.58%	39	4.51%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>1,831</b>	<b>6.44%</b>	<b>3,142</b>	<b>11.06%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>
<b>2021</b>								
ACT	598	13.49%	917	20.69%	0	0.00%	0	0.00%
NSW	24,206	14.60%	37,690	22.73%	1	0.15%	2	0.30%
Northern Territory	100	18.05%	132	23.83%	0	0.00%	0	0.00%
Queensland	993	5.45%	1,748	9.59%	0	0.00%	0	0.00%
South Australia	1,126	8.95%	1,873	14.89%	1	7.69%	1	7.69%
Tasmania	60	6.24%	95	9.89%	0	0.00%	0	0.00%
Victoria	31,431	19.25%	42,869	26.26%	1	0.13%	2	0.26%
Western Australia	19	19.25%	27	9.12%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>58,533</b>	<b>6.42%</b>	<b>85,351</b>	<b>23.31%</b>	<b>3</b>	<b>0.20%</b>	<b>5</b>	<b>0.28%</b>
<b>2022</b>								
ACT	1,828	9.86%	2,884	15.56%	0	0.00%	0	0.00%
NSW	40,983	11.4%	66,034	18.37%	0	0.00%	0	0.00%
Northern Territory	82	7.33%	127	11.35%	0	0.00%	0	0.00%
Queensland	9,430	5.58%	17,688	10.47%	0	0.00%	0	0.00%
South Australia	5,646	10.48%	9,552	17.43%	0	0.00%	0	0.00%
Tasmania	510	5.36%	927	9.74%	0	0.00%	0	0.00%
Victoria	22,052	7.57%	35,793	12.29%	0	0.00%	0	0.00%
Western Australia	4	4.04%	6	6.06%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>80,635</b>	<b>8.92%</b>	<b>133,011</b>	<b>14.72%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

^ Due to the dynamic nature of the NINDSS, numbers may be subject to revision and may vary from numbers previously reported and from daily officially reported case numbers released by states and territories. Dates defined using case notification date. Deaths may have occurred in a different year to that of case notification.

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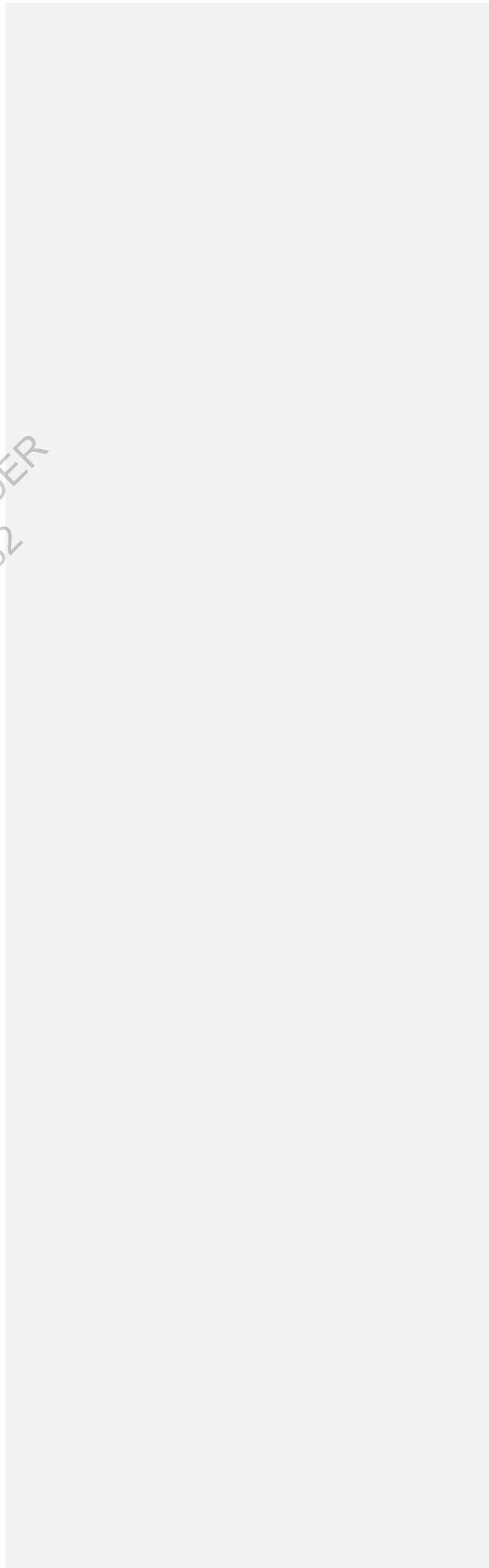
**Percentage of children and adolescents vaccinated by age group and jurisdiction.**

Source the [COVID-19 Vaccine Roll-out Jurisdictional Breakdowns](#) report and as at 22 January 2022.

Age group	Aus	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
16 to 19 years % with dose 1	90.9%	>95%	91.0%	91.5%	87.7%	84.0%	89.5%	90.9%	91.4%
16 to 19 years % with dose 2	87.2%	97.3%	89.5%	83.3%	83.3%	78.5%	84.2%	89.5%	80.2%
12 to 15 years % with dose 1	82.6%	>99%	82.7%	80.9%	74.7%	79.9%	83.4%	88.6%	77.1%
12 to 15 years % with dose 2	75.7%	97.3%	78.4%	69.8%	66.6%	71.2%	75.0%	84.4%	61.3%
5 to 11 years % with dose 1	28.0%	47.7%	28.0%	27.4%	25.7%	29.7%	34.3%	30.3%	20.4%

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COVID-19 Epidemiology - Quick Facts – 1 February 2022

AUSTRALIA – SUMMARY DATA

Summary of Australian cases and testing – to 1200hrs 01 February 2022

Source: State and territory reporting to the National Incident Centre

	National (total)	ACT	NSW	NT	Qld	SA	Tas	Vic	WA
<b>TOTAL 2020 - 2022</b>									
<b>TOTAL CASES</b>	2,213,084	27,813	905,794	16,877	306,816	106,862	14,155	833,216	1,551
<b>TOTAL DEATHS (CFR)</b>	3,853 (0.2%)	26 (0.1%)	1,442 (0.2%)	2 (0.0%)	209 (0.1%)	120 (0.1%)	18 (0.1%)	2,029 (0.2%)	9 (0.6%)
<b>2022</b>									
<b>Cases</b>	1,817,699	23,813	718,320	16,303	292,957	95,792	13,364	656,757	393
<b>Deaths (CFR)</b>	1,596 <b>(0.1%)</b>	11 (0.0%)	759 (0.1%)	1 (0.0%)	202 (0.1%)	114 (0.1%)	5 (0.0%)	504 (0.1%)	0 (0.0%)
<b>2021</b>									
<b>Cases</b>	366,963	3,882	182,546	500	12,608	10,491	557	156,084	295
<b>Deaths (CFR)</b>	1,331 (0.4%)	12 (0.3%)	609 (0.3%)	1 (0.2%)	1 (0.0%)	2 (0.0%)	0 (0.0%)	706 (0.5%)	0 (0.0%)
<b>2020</b>									
<b>Cases</b>	28,422	118	4,928	74	1,251	579	234	20,375	863
<b>Deaths (CFR)</b>	908 (3.2%)	3 (2.5%)	54 (1.1%)	0 (0.0%)	6 (0.5%)	4 (0.7%)	13 (5.6%)	819 (4.0%)	9 (1.0%)

Current active cases – as at 01 February 2021

Source: State and territory reporting to the National Incident Centre

	NATIONAL			JURISDICTIONS							
	National (total)	24 January (*Change %)	17 January (*Change %)	ACT	NSW	NT	Qld	SA	Tas	Vic	WA
<b>Total Active cases</b>	<b>366,895</b>	411,875 ↓10.9%	708,180 ↓41.8%	3,750	200,901	6,165	63,119	18,928	1,156	72,710	166
<b>Hospitalised (of total Active)</b>	<b>4,954 (1.4%)</b>	5,173 ↓4.2	4,906 ↑5.4%	64	2,749	132	868	273	16	851	1
<b>ICU (of those hospitalised)</b>	<b>375 (7.6%)</b>	404 ↓7.2%	407 ↓0.7%	1	186	4	54	22	1	106	1
<b>Ventilated (of those admitted to ICU)*</b>	<b>137 (36.5%)</b>	146 ↓6.2%	129 ↑13.2%	1	77	0	23	5	1	30	0

Data on the number of “active” cases are provided daily from each jurisdiction. These data are: the total number of “active” cases and the number of cases in hospital, ICU and ventilated on the reporting day.

“Active” case information (including the number of cases in hospital, ICU and ventilated) can only be used to provide a snapshot of cases on a specific day. It cannot be aggregated over time periods, as cases are active (or can be in hospital) for more than one day, so any aggregation would not be an accurate count of cases.

Only aggregate data on “active” cases are provided from each jurisdiction, there is no breakdown of active cases by any demographic characteristics. Therefore, information on active cases among specific sub-populations, such as people in regional or remote areas or among Aboriginal and Torres Strait Islander people is not available through jurisdictional reporting.

There is currently no nationally agreed definition of an “active” case. Each jurisdiction uses different decision rules to determine whether a case is active and when they stop being active. Some important differences that affect the number of active cases reported by each jurisdiction include the length of time a case is considered active and how and when case in hospital are classified as active or cleared.

\*Change percentage in following week

## COVID-19 Cases by Vaccination status - Locally acquired cases aged 12 years and over, selected jurisdictions\*, 16 June 2021 – 17 January 2022

Source: NINDSS cases to 17 January 2022, extracted 1 February 2022

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>DELTA WAVE (16 June 2021 – 14 December 2021): NSW, ACT, QLD, and SA only</b>					
Fully vaccinated	12,487 (20.5%)	984 (11.3%)	77 (5.9%)	113 (18.2%)	13,661 (19.1%)
Partially vaccinated	6,670 (10.9%)	782 (9.0%)	81 (6.2%)	75 (12.1%)	7,608 (10.6%)
No effective vaccination***	34,695 (56.9%)	5,617 (64.6%)	886 (68.2%)	425 (68.3%)	41,623 (58.2%)
Unknown	7,103 (11.7%)	1,314 (15.1%)	256 (19.7%)	9 (1.4%)	8,682 (12.1%)
<b>Total</b>	<b>60,955</b>	<b>8,697</b>	<b>1,300</b>	<b>622</b>	<b>71,574</b>
<b>CURRENT WAVE (15 December 2021 – 17 January 2022): NSW, QLD, SA and WA only</b>					
Fully vaccinated	12,207 (59.6%)	359 (33.0%)	12 (11.4%)	15 (40.5%)	12,593 (58.0%)
Partially vaccinated	1,168 (5.7%)	85 (7.8%)	10 (9.5%)	6 (16.2%)	1,269 (5.8%)
No effective vaccination**	5,055 (24.7%)	526 (48.3%)	64 (61.0%)	14 (37.8%)	5,659 (26.1%)
Unknown	2,048 (10.0%)	119 (10.9%)	19 (18.1%)	2 (5.4%)	2,188 (10.1%)
<b>Total</b>	<b>667,354</b>	<b>12,016</b>	<b>613</b>	<b>736</b>	<b>680,719</b>

\*Selected jurisdictions are included based on the availability of vaccination data and the presence of cases during the outbreak periods. Excluded jurisdictions have either: high proportions of cases with no information on vaccination status or no or few locally acquired cases during the relevant outbreak period.

\*\* \*Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen. excludes cases with an illness onset in the last two weeks to account for the delay between onset and the development of severe illness.

### POPULATION GROUPS – SUMMARY DATA

#### Locally-acquired COVID-19 Cases by Vaccination status, selected jurisdictions\*, 1 January 2021 to 17 January 2022 – Not available for NDIS participants or RACF residents

Source: NINDSS cases to 17 January 2022, extracted 1 February 2022

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>REGIONAL/REMOTE @*- NSW, SA, QLD and WA cases aged 12 years and older</b>					
Fully vaccinated	86,322 (72.7%)	2,233 (66.9%)	82 (38.3%)	59 (51.8%)	88,696 (72.4%)
Partially vaccinated	3,679 (3.1%)	139 (4.2%)	16 (7.5%)	16 (14.0%)	3,850 (3.1%)
No effective vaccination**	7,273 (6.1%)	487 (14.6%)	81 (37.9%)	34 (29.8%)	7,875 (6.4%)
Unknown	21,524 (18.1%)	481 (14.4%)	35 (16.4%)	5 (4.4%)	22,045 (18.0%)
<b>TOTAL</b>	<b>118,798</b>	<b>3,340</b>	<b>214</b>	<b>114</b>	<b>122,466</b>
<b>ABORIGINAL AND TORRES STRAIT ISLANDER POPULATION*^ – NSW, SA, QLD and WA cases aged 12 years and older</b>					
Fully vaccinated	12,207 (59.6%)	359 (33.0%)	12 (11.4%)	15 (40.5%)	12,593 (58.0%)
Partially vaccinated	1,168 (5.7%)	85 (7.8%)	10 (9.5%)	6 (16.2%)	1,269 (5.8%)
No effective vaccination**	5,055 (24.7%)	526 (48.3%)	64 (61.0%)	14 (37.8%)	5,659 (26.1%)
Unknown	2,048 (10.0%)	119 (10.9%)	19 (18.1%)	2 (5.4%)	2,188 (10.1%)
<b>TOTAL</b>	<b>20,478</b>	<b>1,089</b>	<b>105</b>	<b>37</b>	<b>21,709</b>

\* Confirmed locally acquired cases from NSW, SA, QLD and WA. Selected jurisdictions are included based on the availability of vaccination data and the presence of cases during the outbreak periods. Excluded jurisdictions have either: high proportions of cases with no information on vaccination status or no or few locally acquired cases during the relevant outbreak period. Excludes cases with an illness onset in the last two weeks to account for the delay between onset and the development of severe illness.

\*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two-dose regimen. @ Represents cases classified as locally acquired and with a place of residence classified as 'inner regional' 'outer regional', 'remote' and 'very remote'. ^ Excludes cases for whom Indigenous status was unknown, blank or non-indigenous.

## Summary of Cases – By population Group, severity and year

### Summary of Cases – By population Group and year

Source: NINDSS cases to 17 January 2022<sup>#</sup>, extracted 1 February 2022, NDIS data reported on 24 January 2022 and Aged Care data reported on 31 January 2022

Population Group	Not severe (% of cases not severe in this group)	Hospitalisations (but not ICU or died) (% of cases hospitalised in this group)	ICU (but not died) (% of cases admitted to ICU in this group)	Deaths (% among relevant population group)	Total cases (% among relevant population group)	Crude Case Fatality Rate
<b>TOTAL 2020 - 2022<sup>#</sup></b>						
Residential aged care facility residents# (to 31 Jan 2022)	Not available	Not available	Not available	1,414 (0.774%)	14,706 (8.050%)	9.6%
Aboriginal and Torres Strait Islander population (to 17 Jan 2022)*	31,323 (94.551%)	1,639 (4.947%)	125 (0.377%)	41 (0.005%)	33,128 (4.149%)	0.1%
NDIS Participants (1 March 2020 to 31 Jan 2022)^	Not available	Not available	Not available	51 (0.011%)	3,488(0.728%)	1.5%
Regional/Remote locally acquired@ (to 17 Jan 2022)*	201,060 (97.418%)	4,760 (2.306%)	339 (0.164%)	231 (0.003%)	206,390 (2.902%)	0.1%
General population – all cases~ (to 17 Jan 2022)*	1,347,023 (96.970%)	35,286 (2.540%)	3,470 (0.250%)	3,332 (0.013%)	1,389,111 (5.406%)	0.2%
<b>2020</b>						
Residential aged care facility residents	Not available	Not available	Not available	685 (0.375%)	2,051 (1.123%)	33.40 <sup>#</sup>
Aboriginal and Torres Strait Islander population*	140 (86.957%)	19 (11.801%)	2 (1.242%)	0 (N/A)	161 (0.020%)	N/A
NDIS Participants (1 Mar 2020 to 31 Dec 2020)	Not available	Not available	Not available	9 (0.002%)	184 (0.038%)	4.9%
Regional/Remote locally acquired@	990 (86.387%)	112 (9.773%)	20 (1.745%)	24 (0.000%)	1,146 (0.016%)	2.1%
General population – all cases~	24,420 (85.567%)	2,783 (9.752%)	426 (1.493%)	910 (0.004%)	28,539 (0.111%)	3.2%
<b>2021</b>						
Residential aged care facility residents# (to 31 Jan 2022)	Not available	Not available	Not available	729 (0.399%)	12,655 (6.928%)	5.8%
Aboriginal and Torres Strait Islander population~	13,189 (90.946%)	1,174 (8.095%)	111 (0.765%)	28 (0.004%)	14,502 (1.816%)	0.2%
NDIS Participants^ (1 Jan 2021 to 31 Dec 2021)	Not available	68 (0.014%)	Not available	68 (0.004 %)	1,051 (0.219%)	1.8%
Regional/remote locally acquired@	46,577 (94.586%)	2,342 (4.756%)	207 (0.420%)	117 (0.002%)	49,243 (0.692%)	0.2%
General population – all cases~	443,711 (94.716%)	20,769 (4.433%)	2,407 (0.514%)	1,580 (0.006%)	468,467(1.823%)	0.3%
<b>2022</b>						

<b>Aboriginal and Torres Strait Islander population~</b> (to 17 January 2022)*	17,994 (97.449%)	446 (2.415%)	12 (0.065%)	13 (0.002%)	18,465 (2.313%)	0.1%
<b>NDIS Participants^</b> (1 Jan 2022 to 31 Jan 2022)	Not available	80 68 (0.017%)	Not available	13 (0.003%)	1, 531 (0.320%)	0.9%
<b>Regional/remote locally acquired@</b> (to 17 January 2022)*	153,493 (98.392%)	2,306 (1.478%)	112 (0.072%)	90 (0.001%)	156,001 (2.194%)	0.1%
<b>General population – all cases~</b> (to 17 January 2022)*	878,892 (98.519%)	11,734 (1.315%)	637 (0.071%)	842 (0.003%)	892,105 (3.471%)	0.1%

\* Based on cases and deaths with an onset date up to 17 January 2022 due to the gap between onset and illness severity. ^ Approximately 38% (1,314 out of 3,488) of cases are currently considered to be active cases and therefore their outcome of illness is not yet known. Data by calendar year are not available for NDIS participant cases. These dates represent the best estimates for 2020 compared to 2021 incidence comparison. # As the data presented in the tables represent cases and associated deaths across 2020 to 2022, cautious interpretation is required given the differing epidemic contexts, including with regard to vaccination coverage over these periods. @ Represents cases classified as 'inner regional' 'outer regional', 'remote' and 'very remote'. ~ Represents all cases, regardless of source of acquisition (i.e., overseas acquired, locally acquired and under investigation)  
Grey shaded: presents percentage of population; white shaded: presents percentage of cases

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CHILDREN AND ADOLESCENTS – SUMMARY DATA

**Children Summary of Cases and deaths – By jurisdiction and year – to 31 January 2022**

Source: NINDSS extracted 1 February 2022

State	CASES				DEATHS			
	Children under 12		Children under 18		Children under 12		Children under 18	
	N	%	N	%	N	%	N	%
<b>TOTAL 2020 - 2022</b>								
ACT	3,487	12.36%	5,256	18.63%	0	0.00%	0	0.00%
NSW	91,059	13.18%	141,121	20.42%	1	0.08%	1	0.08%
Northern Territory	230	8.84%	333	12.80%	0	0.00%	0	0.00%
Queensland	23,325	7.87%	40,488	13.66%	0	0.00%	0	0.00%
South Australia	10,249	11.06%	16,563	17.88%	2	1.92%	1	1.92%
Tasmania	1,040	7.30%	1,664	11.69%	0	0.00%	0	0.00%
Victoria	70,771	12.28%	102,996	17.87%	2	0.10%	3	0.15%
Western Australia	56	4.39%	75	5.88%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>200,217</b>	<b>11.76%</b>	<b>308,496</b>	<b>18.12%</b>	<b>5</b>	<b>0.14%</b>	<b>6</b>	<b>0.17%</b>
<b>2020</b>								
ACT	0	0.00%	1	0.85%	0	0.00%	0	0.00%
NSW	203	4.12%	344	6.98%	0	0.00%	0	0.00%
Northern Territory	9	12.16%	10	13.51%	0	0.00%	0	0.00%
Queensland	26	2.09%	40	3.21%	0	0.00%	0	0.00%
South Australia	13	2.28%	25	4.39%	0	0.00%	0	0.00%
Tasmania	6	2.56%	12	5.13%	0	0.00%	0	0.00%
Victoria	1,540	7.56%	2,671	13.11%	0	0.00%	0	0.00%
Western Australia	31	3.58%	39	4.51%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>1,828</b>	<b>6.44%</b>	<b>3,142</b>	<b>11.06%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>
<b>2021</b>								
ACT	598	13.54%	917	20.77%	0	0.00%	0	0.00%
NSW	24,261	14.56%	37,813	22.69%	1	0.14%	1	0.14%
Northern Territory	100	18.05%	132	23.83%	0	0.00%	0	0.00%
Queensland	993	5.44%	1,753	9.60%	0	0.00%	0	0.00%
South Australia	1,130	9.01%	1,874	14.94%	1	6.67%	1	6.67%
Tasmania	60	6.22%	95	9.84%	0	0.00%	0	0.00%
Victoria	31,429	19.26%	42,870	26.26%	1	0.12%	2	0.25%
Western Australia	19	6.42%	27	9.12%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>58,590</b>	<b>15.97%</b>	<b>85,481</b>	<b>23.30%</b>	<b>3</b>	<b>0.19%</b>	<b>4</b>	<b>0.26%</b>
<b>2022</b>								
ACT	2,889	12.20%	4,338	18.32%	0	0.00%	0	0.00%
NSW	66,595	12.82%	102,964	19.82%	0	0.00%	0	0.00%
Northern Territory	121	6.13%	191	9.68%	0	0.00%	0	0.00%
Queensland	22,306	8.06%	38,695	13.97%	0	0.00%	0	0.00%
South Australia	9,106	11.45%	14,664	18.44%	1	1.18%	1	1.18%
Tasmania	974	7.47%	1,557	11.94%	0	0.00%	0	0.00%
Victoria	37,802	9.62%	57,455	14.63%	1	0.32%	1	0.32%
Western Australia	6	5.26%	9	7.89%	0	0.00%	0	0.00%
<b>TOTAL</b>	<b>139,799</b>	<b>10.69%</b>	<b>219,873</b>	<b>16.82%</b>	<b>2</b>	<b>0.18%</b>	<b>2</b>	<b>0.18%</b>

^ Due to the dynamic nature of the NINDSS, numbers may be subject to revision and may vary from numbers previously reported and from daily officially reported case numbers released by states and territories. Dates defined using case notification date. Deaths may have occurred in a different year to that of case notification.

SENATE SELECT COMMITTEE  
February 2022

FAS BRIEF – KEY INFORMATION

OHPR Brief XX

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COVID-19 Associated Deaths

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**Trends in COVID-19 associated deaths**

COVID-19 associated deaths - pandemic to date, as at 28 January 2022

- A total of 3,402 COVID-19 deaths have occurred in Australia.
- There have been 40 deaths among Aboriginal and Torres Strait Islander people.
  - The crude case fatality rate is slightly lower among Aboriginal and Torres Strait Islander people (0.12%) than non-Indigenous Australians (0.32%). This does not take into account different population age profiles or the increasing proportion of cases with missing data on Indigenous status.

Recent trends

- There have been 1,103 deaths recorded in NINDSS from 15 December 2021 (considered the current "Omicron" wave).
- Of these deaths, 84% have been in people aged 70 and over, including 24% in people aged 90 and over (Table 1). Of these deaths, 84% have been in people aged 70 and over, including 24% in people aged 90 and over (Table 1). This contrasts with the Delta wave, where 71% of deaths were in people aged 70 years and over.
- The **crude case fatality rate** appears lower than during the Delta wave, at 0.1% of confirmed cases in the current wave, compared to 0.6% of confirmed cases during the Delta wave (Tables 4 and 5).
  - However, decreasing case ascertainment since mid-December 2021 will affect estimates of the case fatality rates. Case fatality rates are calculated using the number of confirmed COVID-19 cases, which excludes reported probable cases diagnosed by rapid antigen test only and cases that are not reported to jurisdictional health departments.
- The **population mortality rate** has increased in recent weeks and, in older age groups, is approaching the rate seen throughout the Delta wave. This is not unexpected given the significantly higher number of cases seen in the Omicron outbreak compared to the Delta outbreak.
  - The highest population mortality rate of COVID-19 deaths in the current wave is in people aged 90 and over, at 91 per 100,000 population.
  - This rate is still slightly lower than population mortality rate among people aged 90 and over during the Delta wave (96 per 100,000 population)
  - However, a direct comparison between these periods is difficult due to:
    - A large difference in case incidence rate (824 per 100,000 population in the Delta wave, compared to 3,860 per 100,000 in the Omicron wave).
    - Increasing rates of vaccination among the general population over the course of the Delta wave.
    - The shorter time period in the Omicron wave to date compared to the Delta wave.

- Among jurisdictions with at least 75% available data on vaccination status of COVID-19 deaths, approximately 24% of COVID-19 deaths occurring during the current Omicron wave had no effective vaccination and approximately 70% of COVID-19 deaths occurring during the current Omicron wave were fully vaccinated 2 doses (Table 2 and 3). In comparison, nationally 93.3% of people aged 16 and over in the general population are vaccinated. Additionally, evidence shows that, for Omicron, 3 doses is much more effective at preventing severe disease.<sup>1</sup>

### Residential aged care facilities

- In the pandemic to date, as of 28 January 2022, approximately 40% (1,356/3,402) of COVID-19 deaths in Australia have occurred in residential aged care facility residents who may be at higher risk of severe disease and death<sup>2</sup>.

### Comorbidity

- Of the deaths due to COVID-19 that occurred by 31 October 2021 and are registered with the Australian Bureau of Statistics (ABS), 71.2% of people had pre-existing chronic conditions certified on their death certificate. Chronic heart diseases were the most common pre-existing chronic condition for those who died from COVID-19. in the time required for death registrations and other administrative and system processes hamper more timely reporting.
- Of the cases admitted to ICU as reported by SPRINT SARI<sup>3</sup>, from 1 July 2021 to 16 January 2022, who were reported to have died and where comorbidity information was available (n=239). 81% had a least one of the specified comorbidities<sup>4</sup>.
- Of the cases admitted to ICU as reported to SPRINT SARI in the current Omicron wave:
  - Mortality increases with age (Figure 3). Approximately 50% of these ICU patients that died were aged 75 years or older.
  - The most common comorbidity in those ICU patients who died with COVID-19 in the period is diabetes (40% of patients with at least one co-morbidity), followed by obesity (27% of patients with at least one co-morbidity) (Figure 4).

### Excess mortality

- Excess mortality analysis, in accordance with the [Australian National Disease Surveillance Plan for COVID-19](#) is sourced from the [Australian Bureau of Statistics Provisional Mortality Statistics](#).
- ABS Mortality Statistics currently cover deaths occurring up until October 2021. The ABS advise that the next excess morbidity report will cover deaths registered up until December 2021 and is due for release on 30 March 2022. Deaths can take over four to eight weeks before they are registered, which delays the compilation of these statistics. The Department is discussing options for expediting the process with the ABS.

<sup>1</sup> Khoury D et al. A meta-analysis of Early Results to predict Vaccine efficacy against Omicron. <https://doi.org/10.1101/2021.12.13.21267748> Published 17 December 2021.

<sup>2</sup> Data from COVID-19 outbreaks in Australian residential aged care facilities – 28 January 2022. *Emergency Preparedness and Response Branch, Ageing and Aged Care Group*

<sup>3</sup> SPRINT-SARI is a sentinel system that collects detailed data on the characteristics and outcomes of interventions for patients admitted to ICUs or High Dependency Units with COVID-19 at participating sites across Australia.

<sup>4</sup> Comorbidities most commonly reported in ICU admissions (currently not available for deaths) were obesity, diabetes, past use of ACE inhibitor or A2 Blocker, cardiac, asthma, chronic pulmonary disease, chronic kidney disease, immune disorders and rheumatological disorders (in descending order for any admission after 25 June 2021)

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- The Economist publishes daily modelled estimates of excess mortality globally, including for Australia. However, the lack of reliable recent data means these modelled estimates are subject to a high level of error, with estimates between 0.1 to 1.3 excess deaths per 10,000 people over recent days.

### Vaccine effectiveness

- The Department continues to monitor developments domestically and internationally measuring the effectiveness of vaccines on reducing an individual's risk of severe disease and death.
- Current evidence shows that for Omicron, a 3-dose course of an mRNA vaccine gives high protection against severe infection (98.2%).<sup>5</sup>
- The Department has convened a COVID-19 Vaccine Effectiveness expert panel and is currently exploring the following avenues to estimate vaccine effectiveness domestically:
  - Assessing the feasibility of using the screening method (utilising vaccination status of case data in NINDSS and population-level vaccination coverage) to estimate VE.
  - Collaborating with the National Centre for Immunisation Research and Surveillance (NCIRS) and jurisdictions that are independently pursuing cohort study (requiring data linkage) and, or test-negative study designs to estimate VE.

### Challenges with accurately characterising COVID-19 associated deaths

#### Data quality decreases as cases increase

- Characterisation of COVID-19 associated deaths requires additional data to be manually provided by jurisdictions. While some data may be provided through routine linkage with existing datasets, other data relies on extensive case interview.
- Jurisdictions are at various stages with linkage of notification data to available registers and data sources to improve completeness of data for purposes of current reporting and analysis needs. This process has not previously been required and thus not in place prior to the pandemic.
- Generally, the depth and quality of data has declined with the sudden and significant increase in cases since December 2021. As case numbers increase the resources available and imperative for in depth case interview decreases. To counter this the following options will be explored:
  - Sentinel systems, where high quality data are collected on a smaller, but representative sample, become more appropriate sources.
  - Detailed analyses of notification data may be focused on those jurisdictions where data are reported with a high level of completeness.
- Currently Victoria and the ACT are excluded from analyses by vaccination status due to poor data completeness.
- Co-morbidities of cases are not routinely collected by public health authorities. Collection of these data is reliant on a more extensive and time-consuming case interview and therefore quality data are currently not collected routinely as it has been perceived as not directly beneficial to the public health response. There is no standalone register or alternative data source of people with co-morbidities to enable linkage to notification data and identification of these people. As such, co-morbidities are not currently a required field in National Interoperable Notifiable Disease Surveillance System (NINDSS) reporting for COVID-19.

<sup>5</sup> Khoury D et al. A meta-analysis of Early Results to predict Vaccine efficacy against Omicron. <https://doi.org/10.1101/2021.12.13.21267748> Published 17 December 2021.



- The proportion of cases sequenced has greatly reduced as widespread community transmission has placed strain on the testing network. It is estimated by the Communicable Disease Genomics Network (CDGN) that approximately 0–3% of respiratory samples collected are sequenced, based on the caseload of the jurisdiction at the time (except WA). Therefore, it is not possible to report with confidence the number of cases and deaths due to variants of concern, and it is anticipated that the delta variant is responsible for a portion of the deaths despite case numbers being dominated by the Omicron variant. As a proxy, analyses are undertaken comparing ‘waves’ where it is extrapolated that these variants are predominantly in circulation.

Delays in reporting

- Outside of NINDSS, jurisdictions provide daily reports to the National Incident Centre (NIC), including data on deaths. These reports are limited to the classifications of ‘new deaths’ and ‘died’ (cumulative deaths). Further analyses of these timely but manually reported data are not possible.
- There is high level of agreement between the deaths provided in daily reports to the NIC with those are available in the NINDSS. At the time of reporting 3,289 (97%) deaths had been reported to the NINDSS.
- Case fatality rates are reported with a 2-week lag to allow for progression of the disease.
- Provisional mortality statistics reported to the ABS are generally delayed by 2 months.

Drawing on alternative surveillance systems and data sources

- The surveillance approach to measuring COVID-19 mortality to date has necessarily relied on case-based surveillance. This is unsustainable with the case numbers being seen in the Omicron wave.
- Given the shift in testing strategy, a more sophisticated approach to bringing together alternative surveillance systems and data sources through data linkage is needed.
  - Ongoing coordination of this integration will be required through an existing committee, such as CDNA. This approach would require a range of technical and governance solutions to be developed with the cooperation of all jurisdictions.
  - Regardless, data completeness is still contingent upon extensive case interview, requiring time, staffing and resourcing at the service delivery level.
- AIHW is preparing an application to develop a COVID register through the MRFF 2021 COVID-19 Treatment Access and Public Health Activities Grant Opportunity.
  - If successful, AIHW aims to have a de-identified dataset be available to Government researchers by Dec 2022, to inform evidence-based decision making.
  - This strategic approach to characterising COVID-19 mortality and translating the findings into communicating the risks to individuals requires resources and expert consideration.

**BACKGROUND**

A COVID-19 associated death is defined for surveillance purposes as a death in a probable or confirmed COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID-19 (e.g. trauma). Data collected on individual cases does not allow for identification of the extent to which COVID-19 contributed to a person’s deaths.

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**ATTACHMENT A: COVID-19 associated deaths notified to the National Interoperable Notifiable Disease Surveillance System (NINDSS)**

**Table 1: COVID-19 associated deaths by jurisdiction and age group, 15 December 2022 – 27 January 2022 (current Omicron wave)**

Source: NINDSS extracted 28 January 2022

	ACT		NSW		NT		Qld		SA		TAS		WA		VIC		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Under 5	0	0%	1	0%	0	0%	0	0%	2	3%	0	0%	0	-	1	0%	4	0%
5 to 11	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	-	0	0%	0	0%
12 to 15	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	-	0	0%	0	0%
16 to 17	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	-	0	0%	0	0%
18 to 29	1	20%	2	0%	0	0%	2	1%	0	0%	0	0%	0	-	0	0%	5	0%
30 to 39	0	0%	1	0%	1	100%	5	4%	4	5%	0	0%	0	-	3	1%	14	1%
40 to 49	1	20%	9	2%	0	0%	1	1%	1	1%	0	0%	0	-	6	2%	18	2%
50 to 59	1	20%	21	4%	0	0%	2	1%	4	5%	0	0%	0	-	16	4%	44	4%
60 to 69	0	0%	47	9%	0	0%	11	8%	5	6%	0	0%	0	-	27	7%	90	8%
70 to 79	0	0%	121	24%	0	0%	20	15%	12	16%	1	100%	0	-	84	23%	238	22%
80 to 89	2	40%	197	39%	0	0%	58	43%	25	32%	0	0%	0	-	148	40%	430	39%
90 and over	0	0%	112	22%	0	0%	36	27%	24	31%	0	0%	0	-	88	24%	260	24%
Unknown	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	-	0	0%	0	0%
<b>Total</b>	<b>5</b>	<b>100%</b>	<b>511</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>135</b>	<b>100%</b>	<b>77</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>0</b>	<b>-</b>	<b>373</b>	<b>100%</b>	<b>1,103</b>	<b>100%</b>

Includes deaths with a date of death from 1 January 2022 to 27 January 2022 or deaths with a missing date of death and a date of onset from 1 January 2022.

**Table 2: COVID-19 associated deaths by jurisdiction and vaccination status, 15 December 2021 – 27 January 2022 (current Omicron wave)**

Source: NINDSS extracted 28 January 2022

	ACT		NSW		NT		Qld		SA		TAS		WA		VIC		Total		Total: excluding Vic, SA and ACT*	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Fully vaccinated	2	40%	361	71%	0	0%	91	67%	50	65%	0	0%	0	-	0	0%	504	46%	452	70%
Partially vaccinated	0	0%	15	3%	1	100%	8	6%	7	9%	0	0%	0	-	0	0%	31	3%	24	4%
No effective vaccination**	0	0%	121	24%	0	0%	33	24%	1	1%	0	0%	0	-	19	5%	174	16%	154	24%
Unknown	3	60%	14	3%	0	0%	3	2%	19	25%	1	100%	0	-	354	95%	394	36%	18	3%
<b>Total</b>	<b>5</b>	<b>100%</b>	<b>511</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>135</b>	<b>100%</b>	<b>77</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>0</b>	<b>-</b>	<b>373</b>	<b>100%</b>	<b>1,103</b>	<b>100%</b>	<b>648</b>	<b>100%</b>

Includes deaths with a date of death from 15 December 2021 to 27 January 2022 or deaths with a missing date of death and a date of onset from 15 December 2021.

For jurisdictions that link to the Australian Immunisation Register (AIR), quality of vaccination status may vary by day of the week due to weekly linkage

\*Selected jurisdictions are included based on the availability of vaccination data. Excluded jurisdictions have a high proportion of cases with no information on vaccination status.

\*\* \*Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen.

**Table 3: COVID-19 deaths by age group and vaccination status, Australia excluding ACT, SA and VIC\*, 15 December 2021 – 27 January 2022**

Source: NINDSS extracted 28 January 2022

	0-17		18-39		40-69		70-79		80-89		90 plus		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Fully vaccinated	0	0%	5	45%	47	52%	105	74%	188	74%	107	72%	452	70%
Partially vaccinated	0	0%	1	9%	6	7%	2	1%	11	4%	4	3%	24	4%
No effective vaccination	1	100%	4	36%	37	41%	30	21%	50	20%	32	22%	154	24%
Unknown	0	0%	1	9%	1	1%	5	4%	6	2%	5	3%	18	3%
<b>Total</b>	<b>1</b>	<b>100%</b>	<b>11</b>	<b>100%</b>	<b>91</b>	<b>100%</b>	<b>142</b>	<b>100%</b>	<b>255</b>	<b>100%</b>	<b>148</b>	<b>100%</b>	<b>648</b>	<b>100%</b>

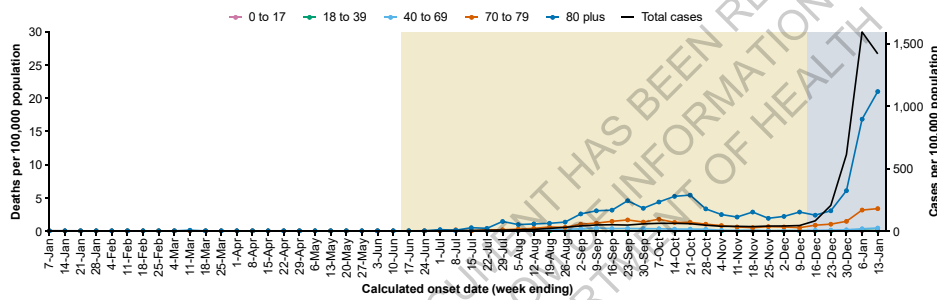
\*Selected jurisdictions are included based on the availability of vaccination data. Excluded jurisdictions have a high proportion of cases with no information on vaccination status.

Includes deaths with a date of death from 15 December 2021 to 27 January 2022 or deaths with a missing date of death and a date of onset from 15 December 2021.

For jurisdictions that link to the Australian Immunisation Register (AIR), quality of vaccination status may vary by day of the week due to weekly linkage

**Figure 1: Age-specific rates per 100,000 population of COVID-19 deaths, Australia, 1 January 2021 to 13 January 2022**

Source: NINDSS extracted 28 January 2022



To account for the lag between illness onset and the development of severe illness, cases with an onset date in the last two weeks have been excluded.

Yellow shading: Delta wave (16 June 2021 – 14 December 2021)

Blue shading: Current omicron wave (15 December 2021 onwards)

**Table 4: COVID-19 deaths and mortality rate, by age group, Australia, 15 December 2021 to 13 January 2022 (current omicron wave)**

Source: NINDSS extracted 28 January 2022

	Deaths	Case fatality rate	Mortality rate per 100,000 population
Under 5	2	<0.05%	0.1
5 to 11	0	0.0%	0.0
12 to 15	0	0.0%	0.0
16 to 17	0	0.0%	0.0
18 to 29	4	<0.05%	0.1
30 to 39	9	<0.05%	0.2
40 to 49	10	<0.05%	0.3
50 to 59	28	<0.05%	0.9
60 to 69	57	0.1%	2.1
70 to 79	172	0.7%	9.2
80 to 89	312	3.0%	36.9
90 and over	193	6.2%	91.3
<b>Total</b>	<b>787</b>	<b>0.1%</b>	<b>3.1</b>

To account for the lag between illness onset and the development of severe illness, cases with an onset date in the last two weeks have been excluded.

**Table 5: COVID-19 deaths and mortality rate, by age group, Australia, 16 June 2021 to 14 December 2021 (Delta wave)**

Source: NINDSS extracted 28 January 2022

	Deaths	Case fatality rate	Mortality rate per 100,000 population
Under 5	0	0.0%	0.0
5 to 11	1	<0.05%	0.0
12 to 15	1	<0.05%	0.1
16 to 17	0	0.0%	0.0
18 to 29	8	<0.05%	0.2
30 to 39	21	0.1%	0.6
40 to 49	45	0.2%	1.4
50 to 59	117	0.6%	3.7
60 to 69	203	1.8%	7.5
70 to 79	345	5.7%	18.4
80 to 89	407	13.5%	48.2
90 and over	203	24.7%	96.1
<b>Total</b>	<b>1,351</b>	<b>0.6%</b>	<b>5.3</b>

**Table 6: COVID-19 deaths and mortality rate, by age group, Australia, 1 January 2022 - 15 June 2021 (pre-vaccination/Delta)**

Source: NINDSS extracted 28 January 2022

	Deaths	Case fatality rate	Mortality rate per 100,000 population
Under 5	0	0.0%	0.0
5 to 11	0	0.0%	0.0
12 to 15	0	0.0%	0.0
16 to 17	0	0.0%	0.0
18 to 29	1	<0.05%	0.0
30 to 39	2	<0.05%	0.1
40 to 49	2	0.1%	0.1
50 to 59	15	0.4%	0.5
60 to 69	38	1.5%	1.4
70 to 79	157	9.4%	8.4
80 to 89	379	29.5%	44.9
90 and over	317	40.4%	150.0
<b>Total</b>	<b>911</b>	<b>3.0%</b>	<b>3.5</b>

Note, given the different lengths of each outbreak, changes in the availability of vaccinations and the population vaccination rate and changes in case ascertainment between the outbreaks (particularly with lower case ascertainment during the current outbreak), case fatality rates and population mortality rates are not directly comparable between each wave.

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ATTACHMENT B: SPRINT SARI data

Figure 3. Mortality in ICU patients admitted to SPRINT SARI hospitals, 15 December 2021 to 31 January 2022

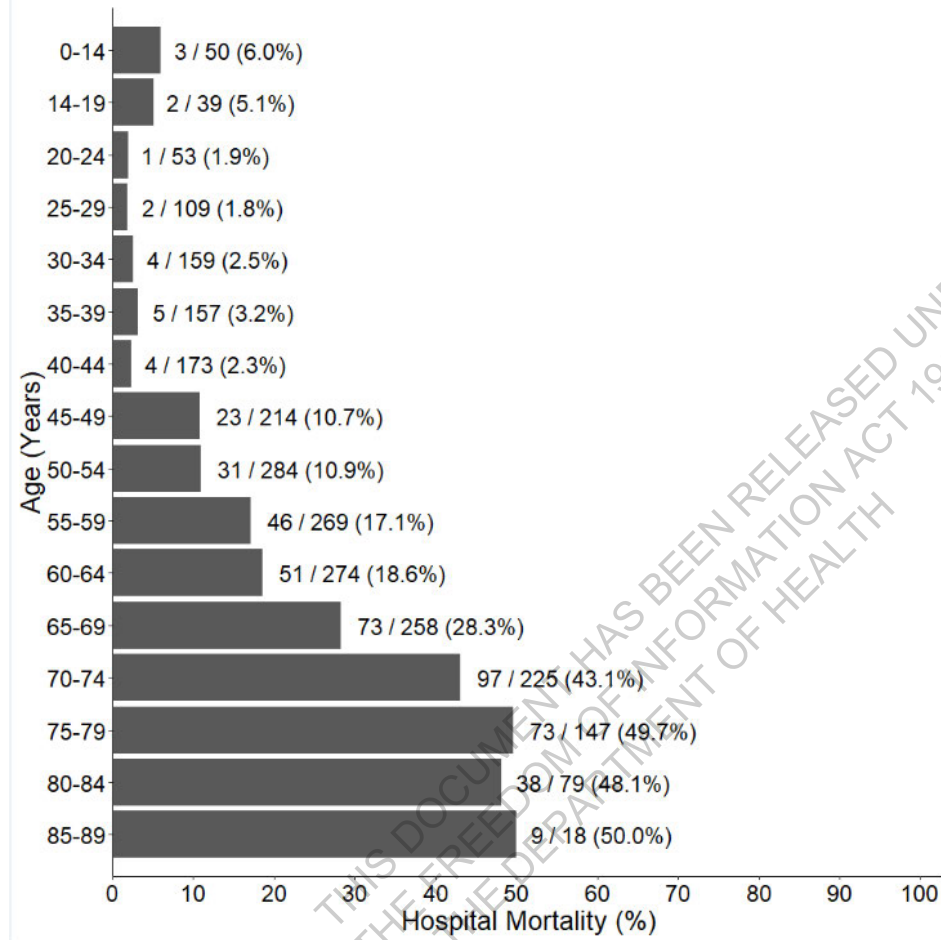
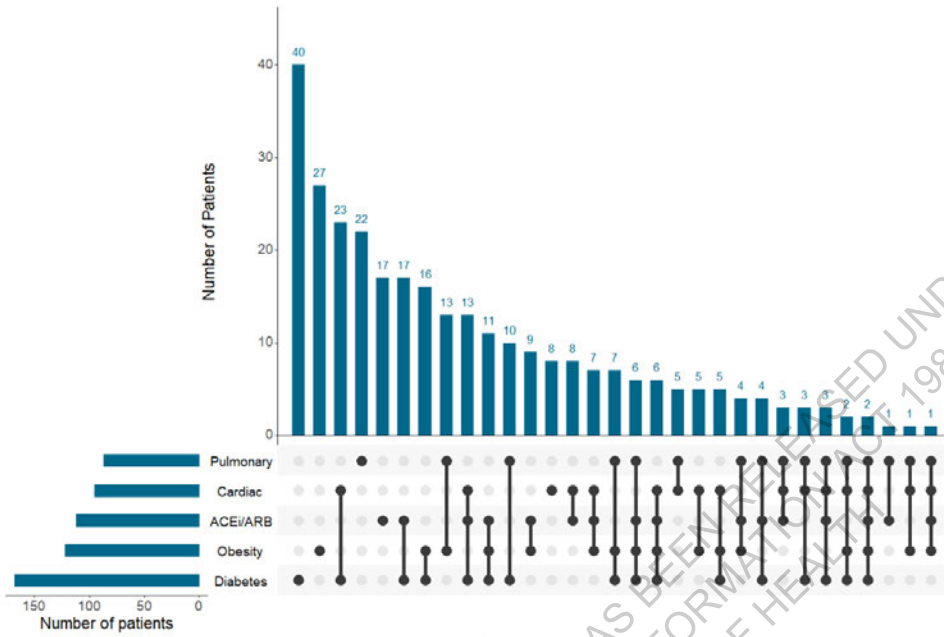


Figure 4. Combination of comorbidities among ICU patients admitted to SPRINT SARI hospitals, 15 December 2021 to 31 January 2022



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SENATE SELECT COMMITTEE  
~~January-February~~ 2022

FAS BRIEF – KEY INFORMATION

OHPR Brief 15  
TIRM: D22-165510

Analysis of Omicron cases:  
Including enhanced data on ICU hospitalisation

s22 Suggest we combine with other  
Omicron case brief

KEY FACTS

National Interoperable Notifiable Disease Surveillance System (NINDSS)

- As at 1 February 2022, there have been 11,672 confirmed Omicron variant cases officially reported in Australia since the first case was reported on 27 November 2021
  - Information on 70% (8,183/11,672) of confirmed Omicron cases is available in NINDSS
- Of all Omicron cases reported in NINDSS, 113 cases have died, an additional 306 have been admitted to ICU and 705 have been admitted to hospital (and not admitted to ICU or died).
  - Excluding cases with an onset date in the last two weeks (to allow time for severe illness to develop), 1.3% of confirmed Omicron cases have died, an additional 3.6% have been admitted to ICU and 8.5% have been admitted to hospital (Table 2).
  - The proportion of cases admitted to hospital or ICU or to have died is much higher among confirmed Omicron cases than all confirmed cases in the current wave (estimated using cases onset since the 15 December 2021). -This is likely due to prioritised sampling of severe cases for sequencing.
- The proportion of Omicron cases who have died is over 2.5 times higher in unvaccinated cases (3.5%) compared to fully vaccinated cases (1.3%) emphasising the continued importance of vaccination on preventing severe illness (Table 3).
  - This must be interpreted with caution as severe cases are more likely to be sequenced.

Data considerations

- Data are based on confirmed cases reported to the National Interoperable Notifiable Diseases Surveillance System (NINDSS) that were extracted on 1 February 2022.
- The following aspects affect the accuracy and representativeness of the data reported:
  - **Sequenced cases are not representative of all cases**
    - The case data provided only includes cases confirmed to have the Omicron variant through sequencing
    - Sequencing requires cases to have been PCR tested. Cases that are positive on RAT and do not have a confirmatory PCR test are not captured in the NINDSS currently.

- Given the resources required to sequence cases, not all cases are sequenced.
  - Since November 2021, only 1.0% of confirmed cases reported to NINDSS have had sequencing information.
  - Each jurisdiction has different guidelines for prioritising case sequencing.
  - In general, these guidelines recommend prioritising overseas acquired cases, severe cases and cases without a known epidemiological link for sequencing.
- Data from the NT are not available in NINDSS for cases notified since 10 January 2022. Due to system issues in the NT, they have been unable to send COVID-19 notifications to the NINDSS and are currently working on implementation of an electronic notification system to handle the increased numbers.
- Data are incomplete from WA for cases notified since 10 January 2022.
- Severity is reported with a 2 week delay to allow for the progression of disease.

### SPRINT-SARI

- Preliminary analysis from SPRINT-SARI data suggests that the profile of people being admitted to ICU with COVID-19 attributed to Omicron differs slightly from those admitted as a result of Delta infection.
- Consistent with previous analyses, it is clear that unvaccinated individuals are at a greater risk of poor health outcomes requiring management and admission to ICU. This is the case regardless of age or which strain of COVID-19 people are infected with.
  - During the Omicron wave, of those aged under 50 years, 67% of ICU admissions could have been prevented by being fully vaccinated, compared to 49% of those aged 50 years and over.
  - For the Delta wave, 98% of ICU admissions could have been avoided if fully vaccinated, compared to 93% for those aged 50 years and over.
- *Public health implications and messaging:*
  - Continued vaccination uptake, including boosters, is important, especially among those under 50 years of age.
  - In addition to maintaining high levels of vaccination among those aged over 50 years, earlier treatment options should be considered, especially among those with comorbidities who are at increased risk of ICU admission and poor health outcomes.

### Data considerations

- SPRINT-SARI data extracted on 18 January 2022 and represents cases with an ICU admission date of 1 July 2021 to 16 January 2022.
  - SPRINT-SARI is a sentinel system that collects detailed data on the characteristics and outcomes of interventions for patients admitted to ICUs or High Dependency Units with COVID-19 at participating sites across Australia.
  - In the absence of comprehensive genetic sequencing data capture, timeframe has been used as a proxy for the 'Delta wave' and 'Omicron wave' respectively. For the purposes of this analysis, ICU admission dates from 1 July to 14 December 2021 are considered to be predominantly driven by Delta. Those with admission dates after 14 December 2021 are considered most likely to be driven by the Omicron strain.

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**Omicron severity and transmissibility compared with Delta international evidence**

- Evidence suggests there is a 50–70% reduction in hospital admissions for Omicron compared with Delta (UKHSA Technical briefing #33).
  - In addition, there is an estimated 81% reduction in hospitalisation risk after three doses of vaccine, compared to unvaccinated Omicron cases.
- Preliminary evidence indicates that Omicron is substantially more transmissible than Delta in populations with a high previous exposure to COVID-19 and/or high vaccination coverage suggesting escape from vaccine and/or infection derived immunity.
  - In the UK, transmission rates are higher for Omicron than Delta, particularly for contacts outside the household; 37.3% of named Omicron close contacts were outside of the household compared to Delta (20.8%) (UKHSA Technical Briefing #31).
- In addition, 19% of Omicron index cases gave rise to a secondary household case, in comparison to 8.3% of Delta index cases (UKHSA Technical Briefing #31).

s22 Suggest adding to s22 's brief or the FAS brief on Omicron severity

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## BACKGROUND

### SPRINT-SARI Supporting data

#### Vaccination Status

Of cases admitted to ICU from 1 July to 14 December 2021 (representing the Delta wave), 76% of those aged less than 50 were unvaccinated. This trend has continued during the current wave, with the majority (53%) of cases aged less than 50 having not received an effective vaccine dose (Table 1).

- Given the staged vaccination rollout in 2021, with older age groups being eligible for vaccination first, it is expected that a larger proportion of cases during the Delta wave, particularly in those aged under 50, are unvaccinated. Therefore, comparisons of vaccine effectiveness between the two waves should be undertaken with caution.

For instance, while there is a larger proportion of cases in ICU who are fully vaccinated in the Omicron wave compared to the Delta wave (46% vs. 5%), reflecting high-levels of vaccination rates among the general population.

#### Comorbidities

During the Delta wave, of cases aged 50 years and over, 69% had at least one of the specified comorbidities; and in the current wave, 76% of cases had at least one comorbidity. For those aged less than 50 years, the majority of cases in ICU during both the Delta and Omicron waves had at least one comorbidity, with 54% and 57% of cases, respectively.

- Listed comorbidities include cardiac disease, chronic respiratory condition, diabetes, obesity, chronic renal disease, chronic neurological condition, malignancy, chronic liver disease and immunosuppression.

#### Deaths

Hospitalisation outcome was available for 90% (2,070/2,295) of cases admitted to ICU between 1 July and 14 December 2021, and of these 17% (345/2,070) of cases were reported to have died. Where comorbidity information was available, 81% of those who died had at least one of the specified comorbidities.

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## ATTACHMENTS

### Attachment A – NINDSS

- Table 1: Confirmed Omicron cases by jurisdiction and age group
- Table 2: Confirmed Omicron cases by age and highest level of illness severity, Australia, cases with an onset to 17 January 2022 (two weeks delay)
- Table 3: Confirmed Omicron cases aged 12 years and over by vaccination status and highest level of illness severity, Australia, cases with an onset to 17 January 2022 (two weeks delay)

### Attachment B – SPRINT-SARI

- Table 4. COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by vaccination status and age group, 1 July 2021 – 16 January 2022
- Table 5. Number of comorbidities in COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by age group, 1 July 2021 – 16 January 2022
- Table 6. Number of comorbidities in COVID-19 cases who died at participating SPRINT SARI sentinel sites, 1 July 2021 – 14 December 2021

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ATTACHMENT A

NINDSS

Table 1a: Confirmed Omicron cases in NINDSS by jurisdiction and age group, to 31 January 2022

Data source: NINDSS, extracted 1 February 2022

	ACT	NSW	NT	Qld	SA	Vic	WA	Total
0-4	18 (4%)	55 (3%)	1 (4%)	84 (2%)	64 (8%)	1 (0.5%)	3 (4%)	226 (3%)
5-11	16 (3%)	49 (2%)	2 (7%)	112 (3%)	30 (4%)	8 (4%)	2 (2%)	219 (3%)
12-15	5 (1%)	51 (2%)	1 (4%)	104 (2%)	14 (2%)	4 (2%)	2 (2%)	181 (2%)
16-17	5 (1%)	28 (1%)	0 (0%)	91 (2%)	10 (1%)	0 (0%)	1 (1%)	135 (7%)
18-29				1,624 (37%)			31 (37%)	
	176 (36%)	823 (38%)	9 (32%)		176 (23%)	74 (36%)		2,913 (36%)
30-39							22 (27%)	
	110 (23%)	265 (12%)	4 (14%)	798 (18%)	122 (16%)	53 (26%)		1,374 (17%)
40-49							13 (16%)	
	50 (10%)	177 (8%)	3 (11%)	542 (12%)	73 (9%)	27 (13%)		885 (11%)
50-59	35 (7%)	168 (8%)	5 (18%)	448 (10%)	60 (8%)	20 (10%)	4 (5%)	740 (9%)
60-69	28 (6%)	183 (8%)	2 (7%)	304 (7%)	75 (10%)	10 (5%)	2 (2%)	604 (7%)
70-79	21 (4%)	198 (9%)	1 (4%)	184 (4%)	65 (8%)	6 (3%)	2 (2%)	477 (6%)
80-89	18 (4%)	133 (6%)	0 (0%)	120 (3%)	58 (8%)	2 (1%)	1 (1%)	332 (4%)
90+	4 (1%)	30 (1%)	0 (0%)	36 (1%)	23 (3%)	0 (0%)	0	93 (1%)
<b>Total</b>	<b>486</b>	<b>2,160</b>	<b>28</b>	<b>4,447</b>	<b>770</b>	<b>205</b>	<b>83</b>	<b>8,179</b>

Table 1b: All confirmed cases in NINDSS by jurisdiction and age group, 15 December 2021 to 31 January 2022

Data source: NINDSS, extracted 1 February 2022

	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total
0-4	1,194 (5%)	28,394 (5%)	48 (2%)	7,544 (3%)	3,924 (4%)	518 (4%)	15,948 (4%)	5 (3%)	57,575 (4%)
5-11	1,865 (7%)	45,704 (8%)	112 (5%)	15,627 (5%)	6,250 (7%)	515 (4%)	26,977 (6%)	2 (1%)	97,052 (7%)
12-15	854 (3%)	25,109 (4%)	46 (2%)	10,307 (4%)	3,601 (4%)	301 (2%)	12,397 (3%)	3 (2%)	52,618 (4%)
16-17	682 (3%)	17,061 (3%)	40 (2%)	6,761 (2%)	2,681 (3%)	316 (2%)	8847 (2%)	1 (1%)	36,389 (2%)
18-29	9,254 (36%)	164,037 (27%)	1,081 (48%)	91,991 (31%)	28,096 (31%)	5,915 (42%)	144,860 (33%)	61 (42%)	445,295 (30%)
30-39	5,176 (20%)	105,973 (18%)	455 (20%)	56,178 (19%)	16,316 (18%)	2,586 (18%)	82,791 (19%)	35 (24%)	269,510 (18%)
40-49	2,898 (11%)	77,854 (13%)	213 (9%)	41,600 (14%)	11,137 (12%)	1,322 (9%)	51,380 (12%)	17 (12%)	186,421 (13%)
50-59	2,105 (8%)	62,301 (10%)	165 (7%)	31,798 (11%)	9,405 (10%)	1181 (8%)	41,120 (9%)	11 (7%)	148,086 (10%)
60-69	1,129 (4%)	40,943 (7%)	57 (3%)	18,103 (6%)	5,621 (6%)	742 (5%)	24,939 (6%)	5 (3%)	91,539 (6%)
70-79	499 (2%)	20,534 (3%)	20 (1%)	8,253 (3%)	2,642 (3%)	388 (3%)	11,921 (6%)	6 (4%)	44,263 (3%)
80-89	221 (1%)	8,549 (1%)	7 (<1%)	3,273 (1%)	1,322 (1%)	146 (1%)	4,973 (1%)	1 (1%)	18,492 (1%)
90+	70 (<1%)	2,537 (<1%)	0 (0%)	1,121 (<1%)	560 (1%)	58 (<1%)	1,301 (0.3%)	0 (0%)	5,647 (0.4%)
Unknown	0 (0%)	122 (<1%)	1 (0.04%)	1,475 (1%)	89 (0.1%)	4 (0.03%)	6161 (1%)	0 (0%)	7,852 (0.5%)
<b>Total</b>	<b>25,947 (100%)</b>	<b>599,118 (100%)</b>	<b>2,245 (100%)</b>	<b>294,031 (100%)</b>	<b>916,44 (100%)</b>	<b>13,992 (100%)</b>	<b>433,615 (100%)</b>	<b>147 (100%)</b>	<b>1,460,739 (100%)</b>

**Table 2a: Confirmed Omicron cases by age and highest level of illness severity, Australia, cases with an onset to 4 January 2022 (two weeks delay) <sup>^\*</sup>**

Data source: NINDSS, extracted 1 February 2022

Age group	Count					% of total cases by age group		
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died
0-4	184	23	2	1	210	11.0%	1.0%	0.5%
5-11	197	7	1	0	205	3.4%	0.5%	0.0%
12-15	165	5	0	0	170	2.9%	0.0%	0.0%
16-17	127	1	1	0	129	0.8%	0.8%	0.0%
18-29	2,692	143	12	1	2,848	5.0%	0.4%	<0.05%
30-39	1,198	83	18	5	1,304	6.4%	1.4%	0.4%
40-49	757	47	28	3	835	5.6%	3.4%	0.4%
50-59	583	60	43	11	697	8.6%	6.2%	1.6%
60-69	399	69	59	15	542	12.7%	10.9%	2.8%
70-79	246	84	72	28	430	19.5%	16.7%	6.5%
80-89	123	103	39	23	288	35.8%	13.5%	8.0%
90+	37	31	2	13	83	37.3%	2.4%	15.7%
Unknown	0	0	0	0	0	NA	NA	NA
<b>Total</b>	<b>6,708</b>	<b>656</b>	<b>277</b>	<b>100</b>	<b>7,741</b>	<b>8.5%</b>	<b>3.6%</b>	<b>1.3%</b>

<sup>^</sup>Given the delay between illness onset and severe illness, to provide a more accurate assessment of the highest level of severity, cases with an onset in the last two weeks were excluded from the analysis.

\*Note this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete and the definitions used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed omicron case numbers, as severe cases are more likely to be sequenced.

**Table 2b: All confirmed cases by age and highest level of illness severity, Australia, cases with an onset from 15 December 2021 to 17 January 2022 (two weeks delay) <sup>^\*</sup>**

Data source: NINDSS, extracted 1 February 2022

Age group	Count					% of total cases by age group		
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died
0-4	37,435	887	14	2	38,338	2.3%	<0.05%	<0.05%
5-11	67,101	433	7	0	67,541	0.6%	<0.05%	0.0%
12-15	38,398	226	1	0	38,625	0.6%	<0.05%	0.0%
16-17	28,478	212	5	0	28,695	0.7%	<0.05%	0.0%
18-29	380,626	3,156	53	4	383,839	0.8%	<0.05%	<0.05%
30-39	208,440	2,134	70	14	210,658	1.0%	<0.05%	<0.05%
40-49	139,102	1,550	81	13	140,746	1.1%	0.1%	<0.05%
50-59	112,494	1,666	118	37	114,315	1.5%	0.1%	<0.05%
60-69	65,713	1,837	196	76	67,822	2.7%	0.3%	0.1%
70-79	29,209	2,077	198	235	31,719	6.5%	0.6%	0.7%
80-89	10,570	1,977	79	418	13,044	15.2%	0.6%	3.2%
90+	2,990	625	10	265	3,890	16.1%	0.3%	6.8%
Unknown	7,738	14	0	0	7,752	0.2%	0.0%	0.0%
<b>Total</b>	<b>1,128,294</b>	<b>16,794</b>	<b>832</b>	<b>1,064</b>	<b>1,146,984</b>	<b>1.5%</b>	<b>0.1%</b>	<b>0.1%</b>

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^Given the delay between illness onset and severe illness, to provide a more accurate assessment of the highest level of severity, cases with an onset in the last two weeks were excluded from the analysis.

\*Note this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete and the definitions used by states are not consistent.

**Table 3a: Confirmed Omicron cases aged 12 years and over by vaccination status and highest level of illness severity, Australia, cases with an onset to 17 January 2022 (two weeks delay) ^\***

Data source: NINDSS, extracted 1 February 2022

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>Fully vaccinated</b>	4,359 (86.4%)	436 (8.6%)	185 (3.7%)	66 (1.3%)	5,046
<b>Partially vaccinated</b>	318 (87.1%)	32 (8.8%)	9 (2.5%)	6 (1.6%)	365
<b>No effective vaccination**</b>	423 (87.8%)	32 (6.6%)	10 (2.1%)	17 (3.5%)	482
<b>Unknown</b>	1,227 (85.6%)	126 (8.8%)	70 (4.9%)	10 (0.7%)	1,433
<b>Total</b>	6,327 (86.4%)	626 (8.5%)	274 (3.7%)	99 (1.4%)	7,326

\*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen

\*Note this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete and the definitions used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed omicron case numbers, as severe cases are more likely to be sequenced. Vaccination status is more likely to be known for severe cases

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**Table 3b: All confirmed cases aged 12 years and over by vaccination status and highest level of illness severity, NSW, SA and QLD, cases with an onset from 15 December 2021 to 17 January 2022 (two weeks delay) ^\***

Data source: NINDSS, extracted 1 February 2022

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>Fully vaccinated</b>	516,471 (98.1%)	8,974 (1.7%)	389 (<0.1%)	538 (0.1%)	526,372
<b>Partially vaccinated</b>	15,013 (97.9%)	269 (1.8%)	16 (0.1%)	31 (0.2%)	15,329
<b>No effective vaccination**</b>	20,418 (96.5%)	538 (2.5%)	44 (0.2%)	151 (0.7%)	21,151
<b>Unknown</b>	140,080 (98.0%)	2,606 (1.8%)	187 (0.1%)	43 (<0.1%)	142,916
<b>Total</b>	691,982 (98.1%)	12,387 (1.85)	636 (<0.1%)	763 (0.1%)	705,768

\*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen

\*Note this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete and the definitions used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed case numbers, as severe cases are more likely to receive a PCR test.

Vaccination status is more likely to be known for severe cases

Only cases from NSW, SA and Qld are included as the proportion with unknown vaccination status in these jurisdictions is <25%.

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SPRINT-SARI

Table 4. COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by vaccination status and age group, 1 July 2021 – 16 January 2022

Vaccination Status	1 Jul to 14 Dec 2021			15 Dec 2021 to 16 Jan 2022		
	<50 year	≥50 years	Total	<50 year	≥50 years	Total
Fully vaccinated	20	95	115	40	162	202
	2%	7%	5%	33%	51%	46%
Partially vaccinated	60	199	259	5	10	15
	7%	14%	11%	4%	3%	3%
No effective vaccine	676	892	1,568	64	130	194
	76%	64%	68%	53%	41%	44%
Unknown	139	214	353	11	18	29
	16%	15%	15%	9%	6%	7%
<b>Total</b>	<b>895</b>	<b>1,400</b>	<b>2,295</b>	<b>120</b>	<b>320</b>	<b>440</b>

Table 45. Number of comorbidities in COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by age group, 1 July 2021 – 16 January 2022<sup>^</sup>

Number of comorbidities	<50 years		≥50 years	
	1 Jul to 14 Dec 2021	15 Dec 2021 to 16 Jan 2022	1 Jul to 14 Dec 2021	15 Dec 2021 to 16 Jan 2022
None	346	47	356	73
	46%	43%	31%	24%
One or more	409	62	807	232
	54%	57%	69%	76%
Two or more	145	30	403	133
	19%	28%	35%	44%
Three or more	37	10	159	57
	5%	9%	14%	19%

<sup>^</sup>Excludes cases for which comorbidity information was unavailable, including 140 cases in the Delta wave and 11 cases in the Omicron wave for those aged under 50 years; and 237 cases in the Delta wave and 15 cases in the Omicron wave for those aged 50 years and over.

Table 56. Number of comorbidities in COVID-19 cases who died at participating SPRINT SARI sentinel sites, 1 July 2021 – 14 December 2021<sup>^</sup>

Number of comorbidities	Deaths
None	56
	19%
One or more	239
	81%
Two or more	152
	52%
Three or more	71
	24%

<sup>^</sup>Excludes 50 deaths for which comorbidity information was unavailable.

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## COVID-19 cases hospitalised

### Recent trends

- Overall, the **proportion of cases** hospitalised, admitted to ICU or having died from COVID-19 has been lower during the current wave than the Delta wave (from 16 June 2021 to 14 December 2021).
  - This is likely due to a combination of the biological characteristics of the Omicron variant and increased rates of vaccination among the Australian population.
- However, the significant community transmission since mid-December has resulted in a large increase in case numbers and a corresponding increase in hospitalisations
  - Even with a small proportion of cases being admitted to hospital, the higher case numbers have resulted in a similar population rate of hospitalisation during the current wave than throughout the Delta wave.

### Hospitalised only cases (not including ICU)

- There have been 13,462 cases recorded in NINDSS as being hospitalised only from 15 December 2021 (Table 1).
- Of these hospitalised cases, 27% were people aged 70 and over. This is higher than during the Delta wave, where 17% of the hospitalised cases were in people aged 70 and over (Table 2).
- The **proportion of cases** that are hospitalised appears lower during the Omicron wave, with 1.4% of confirmed cases hospitalised, compared to 7.2% of confirmed cases during the Delta wave.
- The **population hospitalisation rate** has increased in recent weeks and, in older age groups, is higher than the rate seen throughout the Delta wave. This is not unexpected given the significantly higher number of cases seen in the Omicron outbreak compared to the Delta outbreak.
  - The highest COVID-19 hospitalisation rate is in people aged 90 and over, at 224 per 100,000 population.
  - This rate is twice that of the hospitalisation rate among people aged 90 and over during the Delta wave (111 per 100,000 population).

### Cases in ICU

- There have been 642 cases recorded in NINDSS as having been admitted to ICU (but not having died) from 15 December 2021. Of these 35% were people aged 70 and over. During the Delta wave, 13% were people over the age of 70.
- The **proportion of cases** admitted to ICU appears lower during the Omicron wave; 0.1% of confirmed cases during the Omicron wave were admitted to ICU, compared to 1.0% of confirmed cases during the Delta wave.
- The **population rate of ICU admission** has increased in recent weeks, but currently overall remains lower than during the entirety of the Delta wave, at 2.5 per 100,000 population compared with 8.5 per 100,000 population in the Delta wave.
  - This rate will increase, however, as more cases in the current wave are admitted to ICU.
  - The population rate of ICU admission during the current outbreak has exceeded that of the Delta wave in people aged 80 and over.

### Aboriginal and Torres Strait Islander population

- Since 15 December 2021, there have been 16 Aboriginal and Torres Strait Islander people reported to have been admitted to ICU and an additional 600 that are reported to have been hospitalised.

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- The age distribution of severe cases in Aboriginal and Torres Strait Islander people is consistent with the non-Indigenous population, with a higher proportion of cases in older age groups experiencing severe illness when compared to younger age groups (Table 4).
- The proportion of confirmed Aboriginal and Torres Strait Islander confirmed cases admitted to hospital and admitted to ICU during the Omicron wave is lower than during the Delta wave (hospital: 2.9% and 9.5%, respectively; ICU: 0.1% and 0.2%, respectively).
  - The proportion of Aboriginal and Torres Strait Islander cases that are admitted to hospital needs to be interpreted with caution, as the completeness of the Indigenous status field may be linked to hospitalisation, resulting in an overestimation of the population of Aboriginal and Torres Strait Islander cases that were hospitalised.
- The population rate of hospitalisation and ICU admission during the Omicron wave are also lower than during the Delta wave, but have been increasing in recent weeks.

### Comorbidity

- Of the cases admitted to ICU (as reported by SPRINT SARI)<sup>1</sup>, during the Omicron wave (from 15 December 2021 to 16 January 2022) aged 50 years and over 76% of cases had at least one comorbidity (Table 5).
  - This compares to the Delta wave (1 July to 14 December 2022) where 69% of the cases admitted to ICU over the age of 50 years had at least one comorbidity.
- For those aged less than 50 years, the majority of cases in ICU during both the Delta and Omicron waves had at least one comorbidity, with 54% and 57% of cases, respectively.
  - Listed comorbidities include cardiac disease, chronic respiratory condition, diabetes, obesity, chronic renal disease, chronic neurological condition, malignancy, chronic liver disease and immunosuppression.

### Vaccination Status

- Of cases admitted to ICU (as reported by SPRINT SARI) during the Delta wave, 76% of those aged less than 50 were unvaccinated. During the Omicron wave the percentage of cases aged less than 50 years old admitted to ICU who had not received an effective vaccine dose reduced to 53% (Table 6).
  - Given the staged vaccination rollout in 2021, with older age groups being eligible for vaccination first, it is expected that a larger proportion of cases during the Delta wave, particularly in those aged under 50, are unvaccinated. Therefore, comparisons of vaccine effectiveness between the two waves should be undertaken with caution. For instance, while there is a larger proportion of cases in ICU who are fully vaccinated in the Omicron wave compared to the Delta wave (46% vs. 5%), this is likely due to having a more vaccinated underlying population during the current wave rather than a difference in the effect of the vaccine on the two variants.
- Using data from NINDSS, the proportion of confirmed cases admitted to ICU or admitted to hospital during the current Omicron wave is much higher among unvaccinated cases than fully vaccinated cases, emphasising the continued importance of vaccination on preventing severe illness (Table 9).
  - Among cases aged under 50 years, the proportion of cases admitted to ICU during the Omicron wave is over 7 times as high in unvaccinated cases (0.14%) compared to fully vaccinated cases (0.16%).

<sup>1</sup> SPRINT-SARI is a sentinel system that collects detailed data on the characteristics and outcomes of interventions for patients admitted to ICUs or High Dependency Units with COVID-19 at participating sites across Australia.

- Among cases aged 50 years and over, the proportion of cases admitted to ICU during the Omicron wave is over 2.5 times as high in unvaccinated cases (0.7%) compared to fully vaccinated cases (0.2%).
  - The proportion of cases admitted to ICU but not having died is lower among people aged 50 and over partially as, tragically, a greater proportion of cases aged 50 and over die.

### Data considerations

#### *Comparing the Delta and current Omicron wave*

- Making direct comparisons of the hospitalisation of COVID-19 cases during the Delta and current Omicron waves are difficult due to
  - A large difference in case incidence rate (824 per 100,000 population in the Delta wave, compared to 3,860 per 100,000 in the Omicron wave).
  - An increasing use of RAT for diagnosis (and corresponding decrease in case ascertainment)
  - Increasing rates of vaccination among the general population
  - The shorter time period in the Omicron wave to date compared to the Delta wave.
- The following aspects affect the accuracy and representativeness of the data reported:
  - The case data provided includes confirmed cases only. Cases that are positive on RAT and do not seek a confirmatory PCR test are not captured in the NINDSS currently.
  - Note hospitalisation is not always reflective of severe illness as cases may be hospitalised for reasons other than clinical COVID-19 related care.
  - Hospitalisation and ICU status in NINDSS are likely incomplete, as in some jurisdictions they rely on manual data entry and timeliness can reduce in times of high case loads
  - Data from the NT are not available in NINDSS for cases notified since 10 January 2022. Due to system issues in the NT, they have been unable to send COVID-19 notifications to the NINDSS and are currently working on implementation of an electronic notification system to handle the increased numbers.
  - Data are incomplete from WA for cases notified since 10 January 2022.
  - The proportion of cases with an unknown Indigenous status has increased as case numbers have increased.
    - Indigenous status is more likely to be known for more severe cases, as hospital records can be used as a source of data on Indigenous status.
- Severity is reported with a 2 week delay to allow for the progression of disease.

**Table 1: COVID-19 confirmed cases and rate per 100,000 population by age and highest level of illness severity, Australia, 16 June 2021 to 14 December 2021 (“Delta wave”)**

Data source: National Interoperable Notifiable Disease Surveillance System (NINDSS) extracted 28 January 2022

Age group	Count					% of total cases by age group			Rate per 100,000 population			
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases
0-4	13,393	497	9	0	13,899	3.6%	0.1%	0.0%	31.9	0.6	0.0	892.9
5-11	29,212	387	14	1	29,614	1.3%	<0.05%	<0.05%	17.0	0.6	0.0	1,300.9
12-15	11,850	307	15	1	12,173	2.5%	0.1%	<0.05%	24.7	1.2	0.1	978.6
16-17	5,513	175	15	0	5,703	3.1%	0.3%	0.0%	30.0	2.6	0.0	977.1
18-29	45,781	2,484	201	8	48,474	5.1%	0.4%	<0.05%	58.7	4.8	0.2	1,146.1
30-39	32,139	2,557	321	21	35,038	7.3%	0.9%	0.1%	68.0	8.5	0.6	932.3
40-49	22,929	2,336	380	45	25,690	9.1%	1.5%	0.2%	70.9	11.5	1.4	779.3
50-59	15,974	2,087	518	117	18,696	11.2%	2.8%	0.6%	66.9	16.6	3.7	599.1
60-69	8,874	1,744	431	203	11,252	15.5%	3.8%	1.8%	64.7	16.0	7.5	417.2
70-79	4,062	1,371	227	345	6,005	22.8%	3.8%	5.7%	72.9	12.1	18.4	319.5
80-89	1,564	982	51	407	3,004	32.7%	1.7%	13.5%	116.2	6.0	48.2	355.6
90+	383	235	2	203	823	28.6%	0.2%	24.7%	111.2	0.9	96.1	389.4
Unknown	1,343	0	0	0	1,343	0.0%	0.0%	0.0%	N/A	N/A	N/A	N/A
<b>Total</b>	<b>193,017</b>	<b>15,162</b>	<b>2,184</b>	<b>1,351</b>	<b>211,714</b>	<b>7.2%</b>	<b>1.0%</b>	<b>0.6%</b>	<b>59.0</b>	<b>8.5</b>	<b>5.3</b>	<b>823.9</b>

Note, given the different lengths of each outbreak, changes in the availability of vaccinations and the population vaccination rate and changes in case ascertainment between the outbreaks (particularly with lower case ascertainment during the current outbreak), the proportion of cases with severe disease and population rates of severe disease are not directly comparable between each wave.

**Table 2: COVID-19 confirmed cases and rate per 100,000 population by age and highest level of illness severity, Australia, 15 December 2021 to 13 January 2022 (“Current Omicron wave”)**

Data source: NINDSS extracted 28 January 2022

Age group	Count					% of total cases by age group			Rate per 100,000 population			
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases
0-4	29,398	723	11	2	30,134	2.4%	<0.05%	<0.05%	46.4	0.7	0.1	1,935.9
5-11	54,497	358	5	0	54,860	0.7%	<0.05%	0.0%	15.7	0.2	0.0	2,409.9
12-15	31,774	174	1	0	31,949	0.5%	<0.05%	0.0%	14.0	0.1	0.0	2,568.5
16-17	24,692	173	4	0	24,869	0.7%	<0.05%	0.0%	29.6	0.7	0.0	4,260.9
18-29	348,859	2,678	41	4	351,582	0.8%	<0.05%	<0.05%	63.3	1.0	0.1	8,312.5
30-39	179,696	1,763	56	9	181,524	1.0%	<0.05%	<0.05%	46.9	1.5	0.2	4,830.1
40-49	116,353	1,245	59	10	117,667	1.1%	0.1%	<0.05%	37.8	1.8	0.3	3,569.5
50-59	95,129	1,332	85	28	96,574	1.4%	0.1%	<0.05%	42.7	2.7	0.9	3,094.5
60-69	54,025	1,419	155	57	55,656	2.5%	0.3%	0.1%	52.6	5.7	2.1	2,063.7
70-79	23,626	1,606	154	172	25,558	6.3%	0.6%	0.7%	85.4	8.2	9.2	1,359.8
80-89	8,626	1,517	64	312	10,519	14.4%	0.6%	3.0%	179.6	7.6	36.9	1,245.2
90+	2,429	474	7	193	3,103	15.3%	0.2%	6.2%	224.3	3.3	91.3	1,468.2
Unknown	7,862	0	0	0	7,862	0.0%	0.0%	0.0%	N/A	N/A	N/A	N/A
<b>Total</b>	<b>976,966</b>	<b>13,462</b>	<b>642</b>	<b>787</b>	<b>991,857</b>	<b>1.4%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>52.4</b>	<b>2.5</b>	<b>3.1</b>	<b>3,859.7</b>

To account for the lag between illness onset and the development of severe illness, cases with an onset date in the last two weeks have been excluded.

Note, given the different lengths of each outbreak, changes in the availability of vaccinations and the population vaccination rate and changes in case ascertainment between the outbreaks (particularly with lower case ascertainment during the current outbreak), the proportion of cases with severe disease and population rates of severe disease are not directly comparable between each wave.

**Table 3: COVID-19 confirmed cases in Aboriginal and Torres Strait Islander people and rate per 100,000 population by age and highest level of illness severity, Australia, 16 June 2021 to 14 December 2021 (“Delta wave”)**

Data source: NINDSS extracted 28 January 2022

Age group	Count					% of total cases by age group			Rate per 100,000 population			
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases
0-4	1,043	61	0	0	1,104	5.5%	0.0%	0.0%	65.0	0.0	0.0	1,176.6
5-11	1,787	47	2	0	1,836	2.6%	0.1%	0.0%	36.3	1.5	0.0	1,419.8
12-15	827	40	2	0	869	4.6%	0.2%	0.0%	58.5	2.9	0.0	1,270.1
16-17	356	27	3	0	386	7.0%	0.8%	0.0%	81.6	9.1	0.0	1,166.4
18-29	1,966	234	16	0	2,216	10.6%	0.7%	0.0%	139.7	9.6	0.0	1,323.1
30-39	1,120	170	19	0	1,309	13.0%	1.5%	0.0%	180.7	20.2	0.0	1,391.5
40-49	699	139	19	3	860	16.2%	2.2%	0.3%	157.7	21.6	3.4	975.7
50-59	420	83	22	6	531	15.6%	4.1%	1.1%	122.8	32.6	8.9	785.8
60 plus	215	102	19	14	350	29.1%	5.4%	4.0%	180.7	33.7	24.8	620.2
Unknown	30	0	0	0	30	0.0%	0.0%	0.0%	N/A	N/A	N/A	N/A
<b>Total</b>	<b>8,463</b>	<b>903</b>	<b>102</b>	<b>23</b>	<b>9,491</b>	<b>9.5%</b>	<b>1.1%</b>	<b>0.2%</b>	<b>113.1</b>	<b>12.8</b>	<b>2.9</b>	<b>1,188.8</b>

Note, given the different lengths of each outbreak, changes in the availability of vaccinations and the population vaccination rate and changes in case ascertainment between the outbreaks (particularly with lower case ascertainment during the current outbreak), the proportion of cases with severe disease and population rates of severe disease are not directly comparable between each wave.



**Table 4: COVID-19 confirmed cases in Aboriginal and Torres Strait Islander people and rate per 100,000 population by age and highest level of illness severity, Australia, 15 December 2021 to 13 January 2022 (“Current Omicron wave”)**

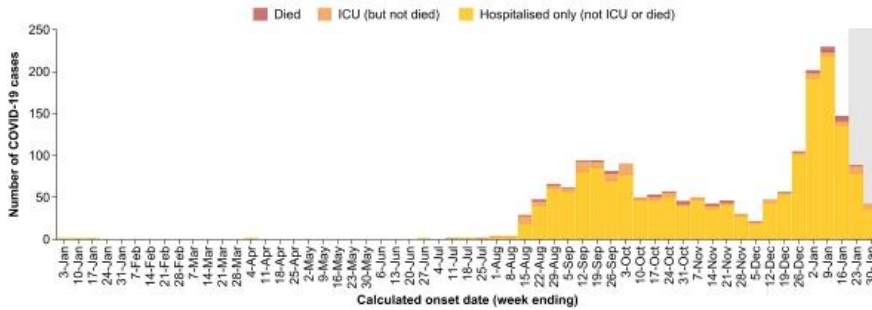
Data source: NINDSS extracted 28 January 2022

Age group	Count					% of total cases by age group			Rate per 100,000 population			
	Not severe	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Hospitalised only (not ICU or died)	ICU (but not died)	Died	Total cases
0-4	1,148	60	0	0	1,208	5.0%	0.0%	0.0%	63.9	0.0	0.0	1,287.4
5-11	1,878	36	0	0	1,914	1.9%	0.0%	0.0%	27.8	0.0	0.0	1,480.2
12-15	1,092	18	0	0	1,110	1.6%	0.0%	0.0%	26.3	0.0	0.0	1,622.3
16-17	768	14	1	0	783	1.8%	0.1%	0.0%	42.3	3.0	0.0	2,366.0
18-29	7,650	172	2	0	7,824	2.2%	<0.05%	0.0%	102.7	1.2	0.0	4,671.3
30-39	2,990	87	1	0	3,078	2.8%	<0.05%	0.0%	92.5	1.1	0.0	3,272.0
40-49	1,941	64	1	1	2,007	3.2%	<0.05%	<0.05%	72.6	1.1	1.1	2,277.1
50-59	1,356	47	4	0	1,407	3.3%	0.3%	0.0%	69.6	5.9	0.0	2,082.1
60 plus	895	102	7	13	1,017	10.0%	0.7%	1.3%	180.7	12.4	23.0	1,802.0
Unknown	32	0	0	0	32	0.0%	0.0%	0.0%	N/A	N/A	N/A	N/A
<b>Total</b>	<b>19,750</b>	<b>600</b>	<b>16</b>	<b>14</b>	<b>20,380</b>	<b>2.9%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>75.2</b>	<b>2.0</b>	<b>1.8</b>	<b>2,552.7</b>

To account for the lag between illness onset and the development of severe illness, cases with an onset date in the last two weeks have been excluded.

Note, given the different lengths of each outbreak, changes in the availability of vaccinations and the population vaccination rate and changes in case ascertainment between the outbreaks (particularly with lower case ascertainment during the current outbreak), the proportion of cases with severe disease and population rates of severe disease are not directly comparable between each wave.

**Figure 1: COVID-19 cases admitted to hospital, ICU or died in Aboriginal and Torres Strait Islander people by illness severity and week of onset, Australia, 28 December 2020 to 30 January 2022**



Figures are presented using date of illness onset. The number of severe cases with an onset date in the most recent two reporting weeks is likely to be an underestimation, as there can be a delay between symptom onset and the development of severe disease.

**Table 5: Crude rate of COVID-19 cases admitted to ICU or died by Indigenous status and age group, Australia, 1 January 2021 to 16 January 2022<sup>^\*</sup>**

Age group	Crude notification rate (per 100,000 population)	
	Indigenous	Not Indigenous
0-17	2.5	1.1
18-59	23.2	10.7
60+	99.2	41.7
All	20.2	15.1

<sup>^</sup>Excludes cases for whom Indigenous status was unknown

<sup>\*</sup>Excludes cases with a symptom onset within the last two weeks given the delay between onset and severe illness. Cases with no symptoms reported have been excluded if the date of swab collection was within the previous two weeks.

**Table 6. Number of comorbidities in COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by age group, 1 July 2021 – 16 January 2022<sup>^</sup>**

Number of comorbidities	<50 years		≥50 years	
	1 Jul to 14 Dec 2021	15 Dec 2021 to 16 Jan 2022	1 Jul to 14 Dec 2021	15 Dec 2021 to 16 Jan 2022
None	346	47	356	73
	46%	43%	31%	24%
One or more	409	62	807	232
	54%	57%	69%	76%
Two or more	145	30	403	133
	19%	28%	35%	44%
Three or more	37	10	159	57
	5%	9%	14%	19%

<sup>^</sup>Excludes cases for which comorbidity information was unavailable, including 140 cases in the Delta wave and 11 cases in the Omicron wave for those aged under 50 years; and 237 cases in the Delta wave and 15 cases in the Omicron wave for those aged 50 years and over.

**Table 7. COVID-19 cases admitted to ICU at participating SPRINT SARI sentinel sites by vaccination status and age group, 1 July 2021 – 16 January 2022**

Vaccination Status	1 Jul to 14 Dec 2021			15 Dec 2021 to 16 Jan 2022		
	<50 year	≥50 years	Total	<50 year	≥50 years	Total
Fully vaccinated	20	95	115	40	162	202
	2%	7%	5%	33%	51%	46%
Partially vaccinated	60	199	259	5	10	15
	7%	14%	11%	4%	3%	3%
No effective vaccine	676	892	1,568	64	130	194
	76%	64%	68%	53%	41%	44%
Unknown	139	214	353	11	18	29
	16%	15%	15%	9%	6%	7%
<b>Total</b>	<b>895</b>	<b>1,400</b>	<b>2,295</b>	<b>120</b>	<b>320</b>	<b>440</b>

**Table 8: Confirmed cases aged 12 years and over by vaccination status and highest level of illness severity, ACT, NSW, SA and QLD, 16 June 2021 to 14 December 2021 ("Delta wave")<sup>^\*</sup>**

Data source: NINDSS extracted 28 January 2022

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>Cases aged 12 to 49</b>					
Fully vaccinated	9,246 (95.6%)	415 (4.3%)	15 (0.16%)	0 (0.0%)	9,676
Partially vaccinated	4,797 (92.7%)	349 (6.8%)	25 (0.48%)	3 (0.06%)	5,174
No effective vaccination**	30,374 (87.6%)	3,816 (11.0%)	429 (1.24%)	48 (0.14%)	34,667
Unknown	6,151 (86.7%)	833 (11.7%)	110 (1.55%)	0 (0.0%)	7,094
<b>Total</b>	<b>50,568 (89.3%)</b>	<b>5,413 (9.6%)</b>	<b>579 (1.02%)</b>	<b>51 (0.09%)</b>	<b>56,611</b>
<b>Cases aged 50 and over</b>					
Fully vaccinated	3,410 (81.5%)	599 (14.3%)	62 (1.5%)	112 (2.7%)	4,183
Partially vaccinated	1,898 (77.0%)	439 (17.8%)	56 (2.27%)	72 (2.92%)	2,465
No effective vaccination**	4,521 (62.78%)	1,841 (25.6%)	460 (6.39%)	379 (5.26%)	7,201
Unknown	1,098 (62.3%)	509 (28.95)	146 (8.3%)	9 (0.51%)	1,762
<b>Total</b>	<b>10,927 (70.0%)</b>	<b>3,388 (21.7%)</b>	<b>724 (4.64%)</b>	<b>572 (3.67%)</b>	<b>15,611</b>

\*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen  
<sup>^\*</sup>Note this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete and the definitions used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed case numbers, as severe cases are more likely to receive a PCR test.

Vaccination status is more likely to be known for severe cases

Only cases from ACT, NSW, SA and Qld are included as the proportion with unknown vaccination status in these jurisdictions is <25%.

**Table 9: Confirmed cases aged 12 years and over by vaccination status and highest level of illness severity, NSW, SA and QLD, 15 December 2021 to 13 January 2022 ("Current Omicron wave") <sup>^\*</sup>**

Data source: NINDSS extracted 28 January 2022

Vaccination status	Not severe (no hospital or death)	Hospitalised (no ICU or death)	ICU (but no death)	COVID-19 related death	Total cases
<b>Cases aged 12 to 49</b>					
<b>Fully vaccinated</b>	312,688 (98.9%)	3,395 (1.1%)	54 (0.02%)	9 (<0.01%)	316,146
<b>Partially vaccinated</b>	10,269 (98.6%)	143 (1.4%)	4 (0.04%)	0 (0.00%)	10,416
<b>No effective vaccination**</b>	12,002 (97.8%)	247 (2.0%)	17 (0.14%)	6 (0.05%)	12,272
<b>Unknown</b>	92,276 (98.7%)	1,198 (1.3%)	456 (0.05%)	2 (<0.01%)	93,522
<b>Total</b>	427,235 (98.8%)	4,983 (1.2%)	121 (0.03%)	17 (<0.01%)	432,356
<b>Cases aged 50 and over</b>					
<b>Fully vaccinated</b>	94,285 (95.8%)	3,627 (3.7%)	212 (0.2%)	348 (0.35%)	98,472
<b>Partially vaccinated</b>	1,526 (92.9%)	88 (5.4%)	9 (0.6%)	20 (1.22%)	1,643
<b>No effective vaccination**</b>	2,881 (88.4%)	245 (7.8%)	23 (0.7%)	94 (2.90%)	3,243
<b>Unknown</b>	18,184 (95.3%)	787 (4.1%)	94 (0.5%)	25 (0.13%)	19,090
<b>Total</b>	116,878 (95.5%)	4,747 (3.9%)	338 (0.28%)	487 (0.04%)	122,448

\*\* Includes cases without a vaccination and cases with symptom onset within 21 days of a single dose of a two dose regimen

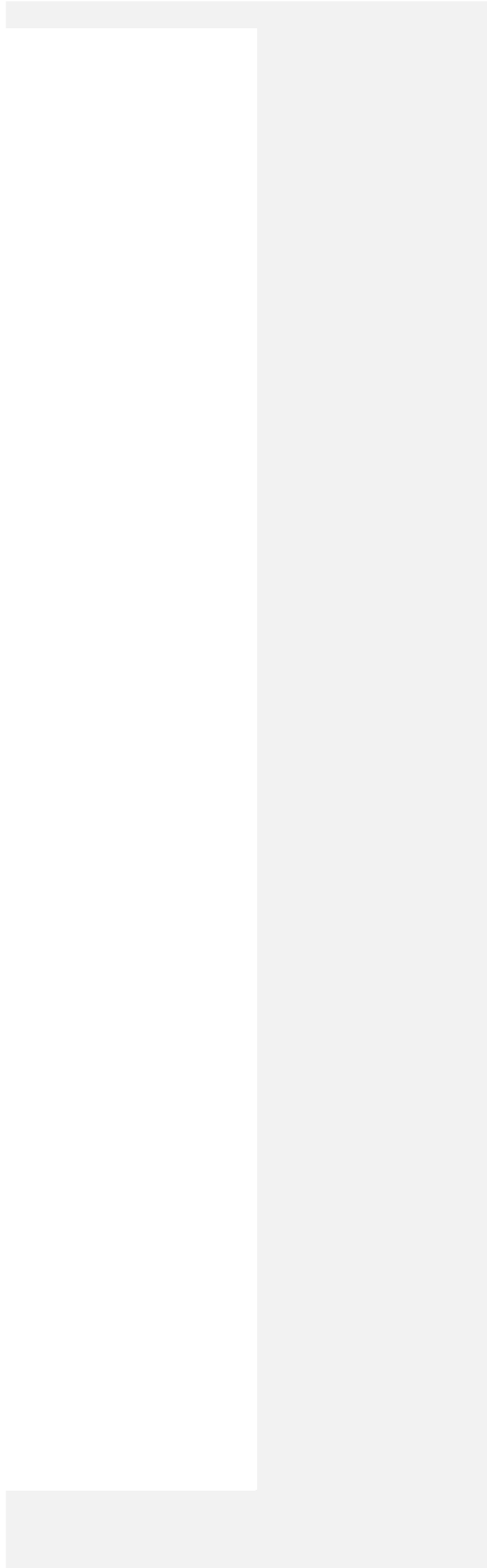
\*Note this information should be interpreted with caution as hospitalisation and ICU status in NINDSS may be incomplete and the definitions used by states are not consistent. There is also potential for severe cases to be overrepresented among confirmed case numbers, as severe cases are more likely to receive a PCR test.

Vaccination status is more likely to be known for severe cases

Only cases from NSW, SA and Qld are included as the proportion with unknown vaccination status in these jurisdictions is <25%.

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SENATE ESTIMATES  
February 2022

FAS Back Pocket BRIEF – KEY INFORMATION

OHPR Brief 13  
TRIM: D22-149666

## The Omicron wave has not yet plateaued

### KEY FACTS

- There is no clear epidemiological evidence that the Omicron wave of COVID-19 cases has reached a peak to date, but early indications that a plateau has been reached.
- The recent sharp rise in the positivity rate suggests the number of confirmed cases is likely to represent only a small fraction of the true number of cases. The emergence of the highly transmissible Omicron variant and exponential increase in cases has significantly compromised the accuracy of COVID-19 case numbers reported in Australia.
- Factors contributing to the current under-diagnosis and reporting of COVID-19 cases include changes to close contact definitions, tightened restrictions on eligibility for PCR testing and reduced contact tracing by Public Health Units, long test wait times, lack of access to RATs and people not reporting positive RAT results or these not being reported to the Commonwealth.
- All key indicators of the pandemic in the Common Operating Picture continue to increase. The Reff exceeds 1.0 in all jurisdictions, which means the outbreak continues to grow at a faster rate than it can be contained.
  - Reff is a way of measuring an infectious disease's capacity to spread and signifies the average number of people that one infected person will pass the virus to. A Reff less than 1.0 suggests an outbreak is beginning to come under control.
- The percentage of COVID-19 PCR tests with a positive result in the past 7 days is 25.7%.
  - PCR test positivity has decreased across all jurisdictions in the last two weeks
  - A higher percent positive suggests higher transmission and there are likely more people with COVID-19 in the community who have not been tested yet.
- Whilst hospitalisations, ICU admissions and deaths are all lagging indicators, as it takes time to receive the data into reporting systems, there are early indications that these may be starting to decline (Attachment A). But it is still too early to tell as the number of severe cases with an onset in the last two weeks is likely an underestimation given the time required for severe disease to develop.
- There must be a confirmed shift in direction across a combination of indicators, including an established trend of reducing case numbers over consecutive weeks, the Reff moving towards to < 1 and declining test positivity to have more certainty that the Omicron outbreak has peaked.
- No one indicator in isolation is highly sensitive to identifying the inflection point in an outbreak.

### FUNDING

N/A

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To be updated once COP complete

## ATTACHMENTS

Attachment 1 – Graphs showing case numbers, hospitalisations, ICU admissions and Deaths in Australia from COVID-19 for the period 1 November 2021 – 1 February 2022.

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## CONTENTIOUS ISSUES

Federal Minister for Health, Greg Hunt, Australia's CMO, Paul Kelly, South Australia's Premier, Steve Marshall and Victorian Chief Health Officer, Brett Sutton have all stated in the media that case numbers appear to be peaking / plateauing. Stating a position to the contrary may attract debate and / or dissent.

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**ATTACHMENT 1 – GRAPHS SHOWING CASE NUMBERS, HOSPITALISATIONS, ICU ADMISSIONS AND DEATHS IN AUSTRALIA FROM COVID-19 FOR THE PERIOD 1 NOVEMBER 2021 – 1 FEBRUARY 2022.**

Source for all data in Attachment 1: State and territory reporting to the National Incident Centre as at 1 February 2022.

Figure 1. The number of new cases of COVID-19 reported daily in Australia from 1 November 2021 to 1 February 2022.

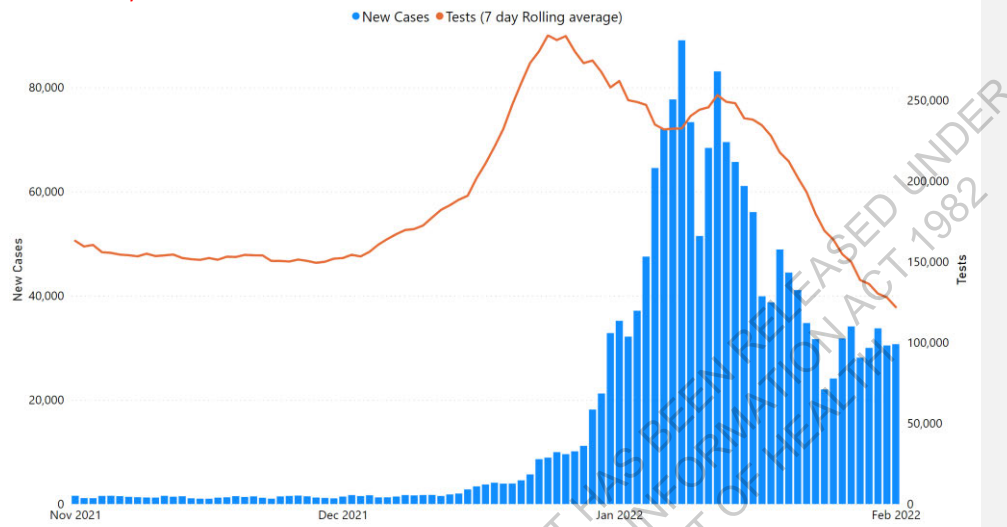


Figure 2. The number of patients in hospital with COVID-19 in Australia from 1 November 2021 to 1 February 2022.



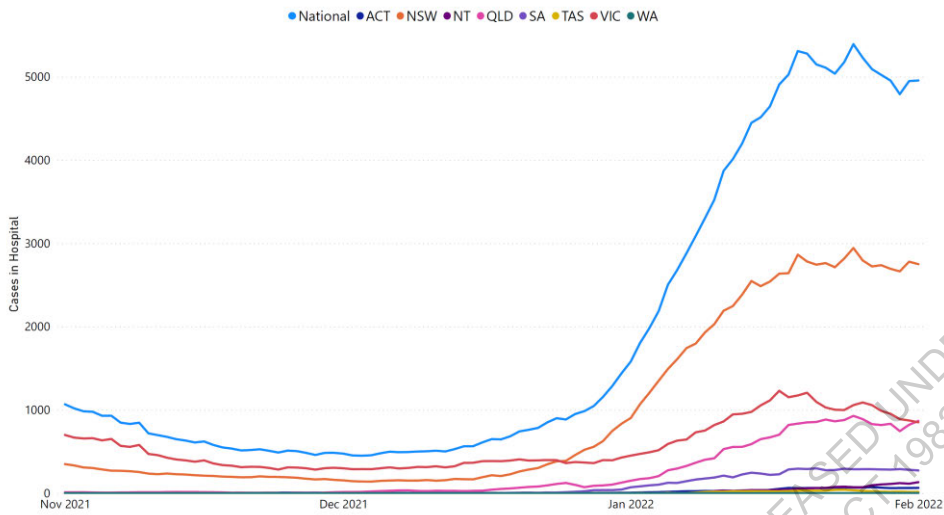


Figure 3. The number of patients in intensive care units with COVID-19 in Australia from 1 November 2021 to 1 February 2022.

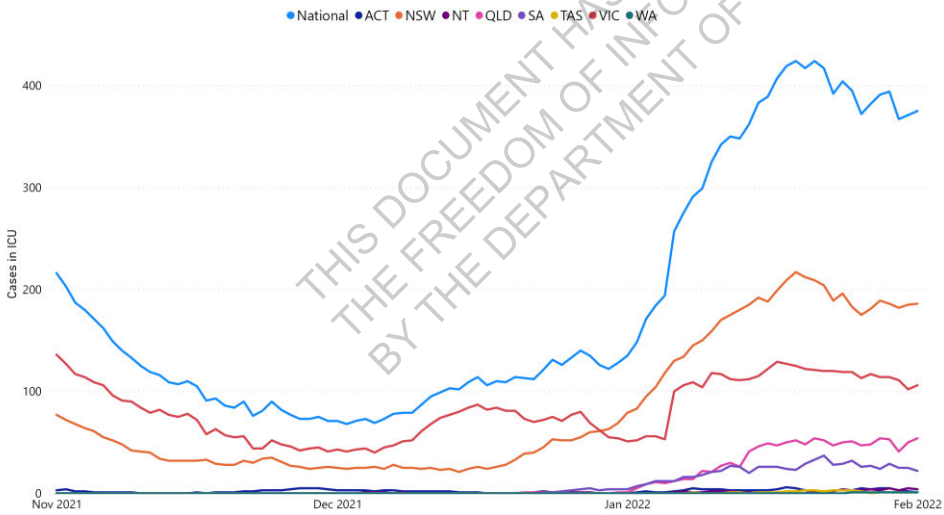
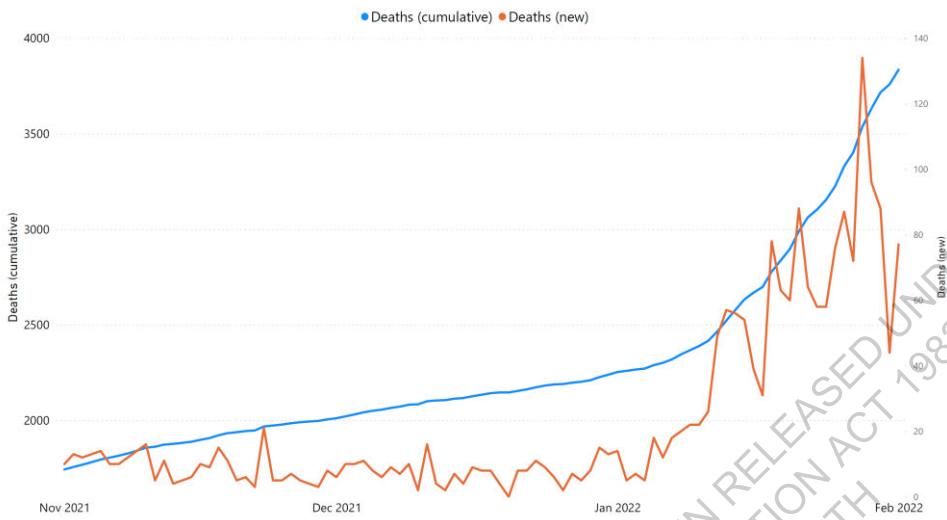


Figure 4. The number of newly reported deaths from COVID-19 in Australia from 1 November 2021 to 1 February 2022.



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